8-9ch and 16ch D1 Standalone

User's Manual

Default Account & Password:

- **User Account: [aa]**
- **Password : [11]**

(Revise Version 1.0)

09/01/2009

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1 Package Content

1-1. DVR ---------- x1
1-2. Remote Controller ---------- x1
1-3. AAA Battery ---------- x2
1-4. Screws ---------- x12
1-5. deck pad (with screws) ---------- x4
1-6. CD ---------- x1
1-7. Quick Reference---------- x1
1-8. User Manual ---------- x1
1-9. Power Adapter ---------- x1
1-10. Power Cable ---------- x1
1-11. RS232 Terminal Cover ---------- x1
1-12. RS232 Y-Cable ----------x1
1-13. Touch Board (optional) ---------- x1

(*Please refer to Appendix B –Touch Board Connection Diagram)*

DVR

Remote Controller

AAA Battery

Screws

deck pad + screws

CD

Quick Reference

User Manual

Power Adapter

Power Cable

RS232 Terminal Cover

RS232 Y-Cable

Touch Board (optional)

2 Feature

- H.264 Compression for better video quality & smaller record size
- 16/9-CH H.264 DVR with Sixplex operation – record, live, playback, backup, control, & remote access
- Support DDNS
- Up to D1 resolution
- POS/CMS integration (support access from remote site)
- Mouse Driven GUI Interface
- Two way Audio communication capabilities
- Audio Broadcasting facilitates administrator easy to manage multiple DVR through one IE
- Simple USB Backup
- Supported Multi-language
- Smart search: provides smart search of “Mark specific Area” for quicker search
- Digital watermark to Prevent film to be altered.
- Playback search by time or event (alarm, motion, video loss, POS)
- Up to 3 SATA HDDs, or 2 SATA HDDs and 1 DVD (optional)
- Internal DVD Models (optional): Video/audio backup to internal DVD, including DVD+RW, DVD+R, and DVD-R
- eSATA connector for HDD extension
- External USB DVD-RW & USB HDD supported (Backup)
- Multi-Operation interface: remote controller, touch board, and mouse operation
- RS-232 and RS-485 for PTZ, keyboard control,
- Immediately remote trigger I/O devices via IE remote software & Mobile Phone
- Remote view via Mobile Phone/IE/CMS2000
- OCX SDK available for the integration with different applications
- Free Bundle powerful CMS IE remote management software, control up to 64chs on one screen & no limitation for number of DVRs connections.
- Support Hybrid CMS2000 Server: powerful managing control for all the DVRs and integrate other security devices (ex.IPCAM & NVR) all together.
- Playback recorded video via IE software (Max. 64chs.)
- Free video player for backup video

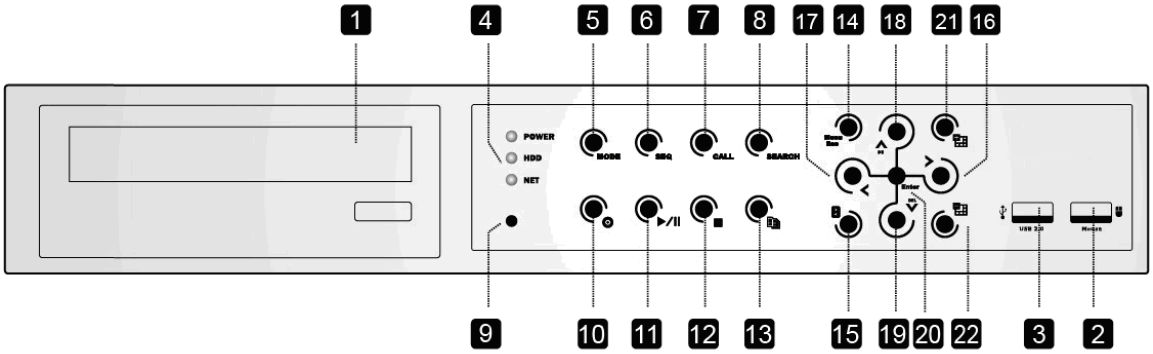
3 Specification

Model	**9ch / 16ch**	
System	O.S.	Embedded Linux 2.6
	Multiplex	Sixplex operation - simultaneous record, live, playback, backup, control, & remote access
	Processor	Multiple
	Certification	FCC, CE
Video	Format	NTSC/ PAL
	Input	9-CH, BNC 16-CH, BNC, 1Vp-p/75ohm
	Main monitor	BNC x 1, S-video x 1, 1Vp-p/75ohm Optional VGA D-SUB 15-pin connector
	Call monitor	BNC x 1, 1Vp-p/75ohm
	Loss detection	Yes
	Motion detection	Yes, with configurable detection area & sensitivity
Audio	Input	4 RCA-jack connectors, line-in level (100mV-2Vrms)
	Output	1 RCA-jack connector, line-out level (up to 2Vrms)
Record	Compression	**H.264 compression**
	Frame rate (IPS) & Resolution	NTSC – 60 / 720*480, 120 / 720*240, 240 / 360*240 PAL – 50 / 720*576, 100 / 720*288, 200 / 360*288
	Watermark	Yes
	Mode	Manual/Schedule/Alarm/Motion
	Pre-record time	0 - 60 seconds
	Post-record time	0 - 60 minutes
Display	Resolution	NTSC: 720*480, PAL: 720*576
	Split windows	1/4/7/9/10/13/16
	Frame rate	Up to 30/25 IPS per display window
	Digital Zoom	X2, X4
	Sequential switch	User adjustable
Playback	Frame rate (IPS) & Resolution	NTSC: 60 / 720*480, 120 / 720*240, 240 / 360*240 PAL: 50 / 720*576, 100 / 720*288, 200 / 360*288
	Search	**Smart search**, Date/time, Camera, Alarm, & Motion
	Operation	Play, Fast Forward, Backward, Pause, Stop.
	Remote	Remote playback from IE or CMS2000
Storage	HDD	3 x 3.5” SATA HDDs(each HDD support up to 2TB) or 2 x 3.5” SATA HDDs & 1x internal DVD-RW (optional) Failure detection & privacy law supported
	HDD Extension	1 **eSATA** connector
	Partitions	Configurable alarm partition size Configurable auto-overwrite or not
	External Backup	1 USB 2.0 port : USB 2.0 disk drives, DVD+RW, DVD+R, DVD-R, card readers, HDD, etc. **DVD models: DVD+RW, DVD+R, DVD-R (optional)** Auto player for backup files
Alarm & DI/DO	Digital Input	16 contact or TTL/CMOS signal, polarity selectable
	Relay Output	NO(Normally Open) x 1, NC(Normally Closed) x 1
	Buzzer	Yes
	Trigger	Via Sensor input, Video loss, & Motion
	Event log	Yes
Network	Ethernet	1 RJ-45 10/100BaseT Ethernet connector
	Web	Remote setup, monitoring, backup, alarm notification, & remote software upgrade **One I.E. page for unlimited DVRs connection** Configurable HTTP/Control/Data port

	E-mail	Alarm notification to stationary or mobile devices
	FTP	Alarm video/audio file storage
	Video	1/4/9/16 split-window & SEQ mode for I.E. and **CMS2000** e-maps for **CMS2000**
	Audio	Two way audio and Audio Broadcasting
	Protocol	TCP/IP, HTTP, PPPoE, DHCP, DDNS, FTP, TSP
	Remote users	Up to 8 users simultaneously
	Bandwidth	TCP/IP type dynamic sliding window control
	Remote stations	**PC, mobile phone, or PDA**
Control Interface	I/R	1 I/R remote controller
	RS-232	1 D-type female connector for PTZ, POS, or GPS
	RS-485/422	2-pin for keyboard/PTZ control
	POS	Plain text (ex. Epson printer and others)
	GPS	Support protocol NMEA0183
Setup	Local	On screen setup via mouse, keypad, I/R remote controller, and/or RS-485 keyboard
	Remote	Setup & upload via Windows application software
	Multi-language	Yes
System	System recovery	Auto power on after power loss recovery
	Watch Dog Timer	Yes
	Timer	Built-in real time clock
	Security	Muli-level password (3 levels, up to 18 accounts) protection with authentication key for remote access
Weights & Dimension	Dimension Weight	430(W) x 300(D) x 66(H)mm 4.0 KG (without HDD)
Power	Source	+12VDC
	Consumption	**65W Max. (with 3 HDDs)**
Operating Temperature		$0^{o}C$ ~ $+45^{o}C$

4 Hardware Introduction And Installation

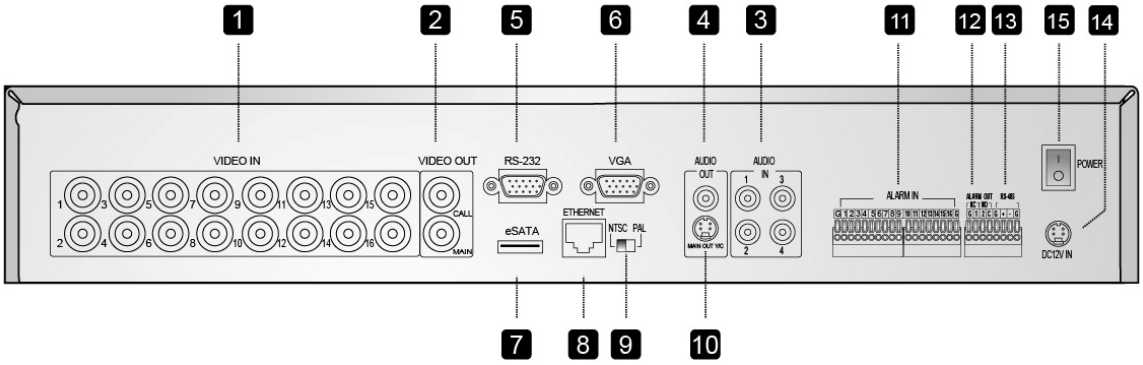
4.1 9CH / 16ch Front view



	Name	Description
1	DVD Writer (optional)	Used for backup purpose if installed.
2	USB Mouse Connector	Connect to USB 1.1 compatible mouse before the DVR is power on.
3	USB connector	Connect to USB 2.0 compatible storage device, such as USB 2.0 disk drive, DVD+RW, card reader, etc.
4	LEDs	Indicators for POWER, HDD, and Net.
5	MODE Button	Press this button to toggle between live mode and playback mode in main screen display. In some dialogs, this button is used as a miscellaneous function key. At playing, this button is used as “slow backward”.
6	SEQ Button	Press this button to switch to or return from SEQ display mode in main screen display. In some dialogs, this button is used as a miscellaneous function key. At playing, this button is used as “slow forward”.
7	CALL Button	Press this button to switch to or return from full screen display of the focus camera in main screen display. In some dialogs, this button is used as a miscellaneous function key.
8	SEARCH Button	Press this button to display the search menu in main screen display. In some dialogs, this button is used as a miscellaneous function key.
9	Remote I/R Sensor	Used to receive signal from I/R remote controller.
10	REC Button	Press this button to force manual recording. To stop manual recording, press it again.
11	Play/Pause Button (▶/II)	Press this button to play the recorded images, or pause the playback.
12	Stop Button (■)	Press this button to stop the playback.

13	Copy Button ( )	Press this button to copy the playback images to the internal DVD writer or the storage device connected to the USB port. Press this button again to stop copying.
14	MENU / ESC Button	Press this button to display the main menu or escape to the upper level display.
15	PAGE Button	Press this button for page down in multi-split-window displays.
16	Right Buttons (►)	In PTZ control, press these buttons to pan the camera. In the other screens, press this button to move the cursor or focus window.
17	Left Buttons (◄)	In PTZ control, press these buttons to pan the camera. In the other screens, press this button to move the cursor or focus window.
18	Up/BS Button (▲/BS)	Press this button to move the cursor or focus window in most circumstances. In PTZ control, press this button to tilt up the camera. In text editing mode, this button is used as “backspace” key.
19	Down/DEL Button (▼/DEL)	Press this button to move the cursor or focus window in most circumstances. In PTZ control, press this button to tilt down the camera. In text editing mode, this button is used as “del” key.
20	ENTER Button	This button is used as “enter” key in most circumstances. In PTZ control, this button is used to start/stop the selected PTZ control mode.
21	(Split Windows) + Buttons ( )	In split-window display, press these buttons for next split-window display. In the others, press these buttons to change the contents.
22	(Split Windows) - Buttons ( )	In split-window display, press these buttons for previous split-window display. In the others, press these buttons to change the contents.

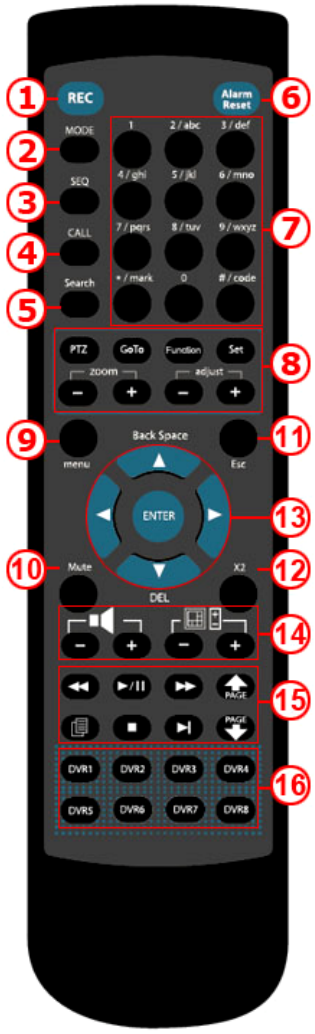
4.2 9CH / 16ch Back view



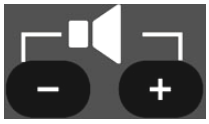
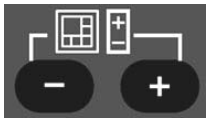
	Name	Description
1	Video Input Connectors (1-16/1-9)	Connect system cameras to these BNC connectors. The internal 75Ω termination is always ON.
2	Video Out (CALL, MAIN)	Connect TV monitor to the upper BNC connector for call monitor display, and connect TV monitor to the lower BNC connector for main monitor display.
3	Audio Input Connectors (AUDIO IN 1-4)	These RCA connectors accept line-in audio signals supplied from external devices such as microphone amplifiers.
4	Audio Output Connectors (AUDIO OUT)	This connector supplies line-out audio signal to external devices such as speakers. Recorded audio will be supplied from AUDIO OUT during playback.
5	RS-232 Connector	Connect this connector to PTZ camera(s), GPS modem, or POS system.
6	VGA Connector (optional)	Connect VGA monitor to the VGA connector for main monitor display
7	eSATA Connector	Connect this port to external SATA storage device for HDD extension.
8	Ethernet Connector	Connect this unit to a 10/100Base-T Ethernet network through this port.
9	NTSC/PAL Selector Switch	Set this unit to NTSC or PAL according to the local TV system.
10	Main Monitor Output Connector (MAIN OUT Y/C)	Connect TV monitor to the mini-din S-video connector for main monitor display.
11	Alarm Input Connectors (ALARM IN 1-16)	Connect these connectors to external devices such as sensors or door switches.
12	Alarm Output Connectors (ALARM OUT 1-4)	Connect these connectors to 2 Normally Closed (NC) alarm outputs (1-2) and 2 Normally Open (NO) alarm outputs

		(3-4).
13	RS-485 Connector	Connect this connector to RS-422/485 compatible PTZ camera(s) or keyboard. Please refer to the manuals come with the RS-485 compatible devices for the correct settings.
14	Power Input (DC 12V)	Connect to DC 12V power source.
15	Power Switch (POWER)	Turn the power of this unit on/off.

4.3 Remote controller



	Name	Description
1	REC	Press to start the recording.
2	Mode	Press to switch between live and playback mode. At playing, this button is used as “slow backward”.
3	SEQ	Press to turn on the sequence mode. At playing, this button is used as “slow forward”.
4	CALL	Press this button to switch to or return from full screen display of the focus camera in main screen display. In some dialogs, this button is used as a miscellaneous function key.
5	Search	Click to search recorded data while in the playback mode. There are five types of search modes: search by time, search by event, smart search, search archived files and POS search. *(Please refer to Chapter 10 Search & Playback for detail information.)*
6	Alarm Reset	Press to restore the alarm status to default.
7	Numeric/ alpha button (1-9, 0, *, #)	Press these buttons for camera selection in most of the circumstances. Use these buttons to enter texts and numerical values. ’#’ is also used for page down in multi-split-window displays.
8	PTZ	Click to access the PTZ control when there is a PTZ camera supported.
	Goto	Click to view the image taken by PTZ camera at its preset location.
	Function	Click to add an audio recording feature.
	Set	Click to switch between GPS (POS: option) Display and to reconfigure the display setting. *(Please refer to Chapter 7.7.9 RS-232 / 422 / 485 NOTE 2*

				for detail setup)
			Zoom	Press ± to adjust the zoom of the cameba.
			Adjust	Click to switch between different display layouts.
9	Menu	Press to access the menu dialog box.		
10	Mute	Press to either mute or un-mute audio.		
11	Esc	Press to exit the setting page.		
12	X2	Press to adjust the zoom.		
13		**▲/Back Space**: Click to move up the selection panel or backspace during text/numeric entry.		
		◄; ►: Click to move left or right.		
		▼/DEL: Click to move down the selection panel or delete text during text/numeric entry.		
		ENTER: Click to enter a feature setting/GPS & POS setting and to save changes. *(Please refer to Chapter 7.7.9 RS-232 / 422 / 485 NOTE 2 for detail information on GPS/POS setting)*		
14		Use ± to adjust the volume.		
		Click to switch between different screen layouts.		
15		◄◄: Rewind feature.		
		►/ II: Click to play or pause the playback.		
		►►: Forward feature.		
		: Click to copy an image to an external storage device. Click again to stop copying.		
		■: Stop the playback.		
		►I : Click to skip to the next image.		
		Page↑↓: Press to scroll up/down the log list.		
16	DVR1 – DVR8	Reserve.		

4.4 Standalone DVR Utility Installation & Manual

4.4.1 Utility Installation

Insert the Installation CD into the CD-ROM.

Execute ‘’Autorun.exe’’. Next Click on ‘’**Utility**’’ button.

* **AVI Converter** can convert the backup file from Standalone into AVI file.

* **Keyboard Ctrl Simulator** can use to simulate a keyboard to control over Standalone DVR.

* **M4V to AVI Converter.**

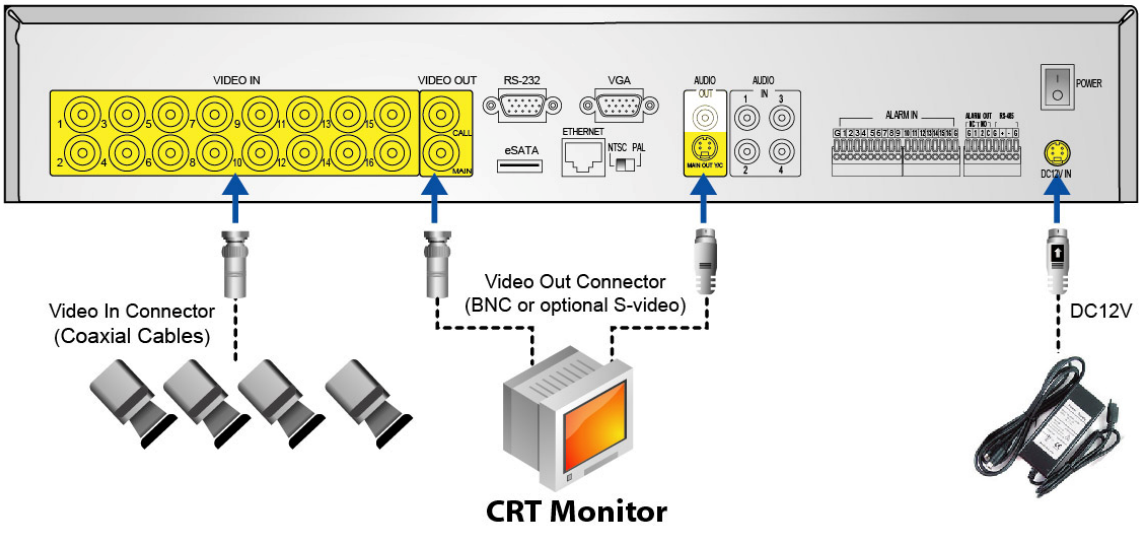
4.4.2 Manual

Click on ”Manual” button.

Click on ‘’English Version‘’ (or ‘’Spanish Version”) button to view English (or Spanish) Manual.

4.5 Basic Connections

Please refer to the following diagram for the connections.



Please make sure to set the NTSC/PAL Selector Switch on the back panel according to the local TV system for the digital video/audio recorder to work correctly.

- Cameras
  Connect the camera video input connectors to the video outputs from system cameras or other composite video sources via coaxial cables.

- Main monitor
  Connect the main monitor output connector (BNC or optional S-video) to a surveillance TV monitor. The TV monitor displays selected live or recorded cameras in any available split window format.

- **Audio inputs**
  Connect the audio input connectors to the audio line-outs from system cameras or other audio sources. Please make sure to associate the audio inputs with the cameras in Camera Setup as described in Section 7.7.2 Camera accordingly.

- **Audio output**
  Connect the audio output connector to the audio line-in from speakers.

- **Alarm inputs**
  Connect the alarm inputs to NC and/or NO type of alarm signals. Please make sure to setup the alarm configurations in Alarm Setup as described in Section 7.7.3 Alarm accordingly.

- **Alarm outputs**
  Connect the alarm outputs 1-2 to NC type of alarm signals, alarm outputs 3-4 to NO type of alarm signals.

- Hard disk drive(s) / DVD Writer
  Make sure to install at least one SATA hard disk drive (Max. storage size 2TB/HDD) inside the DVR. The steps are as below:

  1. Power off the machine, and then use a screwdriver to uncover it.

  2. Use a screwdriver to fix the SATA HDDs (and internal DVD writer), and connect the cables as shown.

  3. Cover the machine.

  Note: Each of the HDDs must be formatted before it can be used to record video/audio. Please refer to Section 7.7.6.1 HDD Format/Clear to format the HDDs.

- Power

Connect DC 12V power source to DC 12V Input.

4.6 Optional Connections

- **Ethernet**
  Connect the Ethernet connector to a standard twisted-pair Ethernet cable for remote access via LAN or internet. Please make sure to setup the related configurations as described in Section 7.7.10 Network Setup.

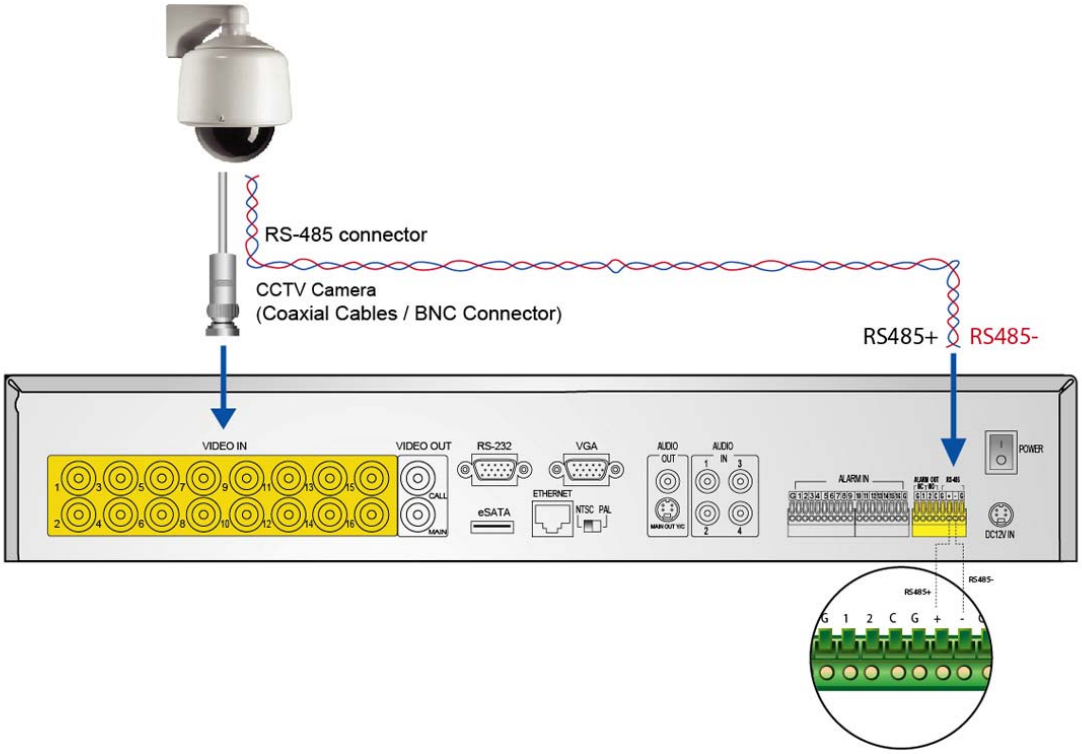
- **USB 2.0 disk drives, DVD+RW, card reader, etc.**
  If the user wants to use USB2.0 peripheral device to retrieve important recorded images and/or audio, please connect it to the USB port connectors (one on the front panel, the other on the back panel).

- **Call monitor**
  Connect the call monitor output connector to a surveillance TV monitor. This monitor displays the full screen images of the cameras associated with the events (alarm or motion) or the images from the installed cameras sequentially according to the SEQ Display Setup (Section 7.7.4 SEQ Display Setup) for call monitor.

- **PTZ Cameras**

  Connect the RS-232 connector or the RS-485 connector to PTZ camera(s) via the appropriate cable. The system supports a variety of different PTZ cameras, including Pelco D protocol Dome, SamSung SCC-641P, Kalatel Cyber Dome, Bosch AutoDome, etc. But different PTZ cameras can coexist in a system only if they support the same protocol. Please make sure to set the PTZ ID of the camera(s), and setup the camera (Section 7.7.1 Pre-Camera), and RS-485 (Section 7.7.9 RS-232/422/485) accordingly. Please also make sure to set the RS-485 Selector Switch if you are using the RS-485 port.

  (Please refer to *Chap 8. PTZ* Control for detail information)



- **eSATA Hard Disk**

  Connect the eSATA connector to an eSATA hard disk for HDD extension.

- **GPS modem**

  Connect the RS-232 connector to GPS modem via the appropriate cable. The system supports the GPS modems with **NMEA0183** protocol. Please make sure to setup the RS-232 port (Section 7.7.9 RS-232/422/485) accordingly.

- **POS system**

  Connect the RS-232 connector to POS system via the appropriate cable. The system supports the POS systems which can be connected to the following printers – Epson-TM200, Epson-TMU295, Epson-TMU300, Epson-TMU675, Epson-TMT882, Epson-RPU420, and Epson-MD332S. Please make sure to setup the RS-232 port (Section 7.7.9 RS-232/422/485) accordingly.

  ***Please refer to Section 13 POS Connection for detail.**

5 Basic Operation

5.1 Text Input

Press ▲▼◄► to highlight the text to be edited then press **Enter** to call up the alpha-numeric text pad.

	Name	Description
1	1	Press to enter the available number.
2	3	Press to enter the available number and letter shown on the screen.
3	*/Mark	Press to bring up a list of punctuation and special symbols.
4	▶	Press to enter the available number and letters shown on the screen.
5	■	Press to enter the available number and letters shown on the screen.
6	CALL	Press to enter the available number and letters shown on the screen. *NOTE: Call monitor button is not functional during text/numeric entry.*
7	2	Press to enter the available number and letters shown on the screen.
8	4	Press to enter the available number and letters shown on the screen.
9	#	Press to enter the code for the selected foreign languages.
A	MUTE	Press to enter the available number and letters shown on the screen. *NOTE: Mute button is not functional during text/numeric entry.*
B	X2	Press to enter the available number and letters shown on the screen. *NOTE: Zoom button is not functional during text/numeric entry.*
C	SEQ	Press to enter number. *NOTE: Sequence mode is not functional during text/numeric entry.*

Attention:

For text and numeric entry using the controller, press directly from the alpha-numeric buttons.

5.2 Basic Operations

The basic user's operations after he/she has logged into the system are described below:

- **Numeric (Mouse:)**

  Press these buttons to switch to the full-window display for the camera. If the camera already exists in the other window, the focus window will exchange with that window for the cameras.

- **Alarm Reset (Mouse:)**

  Press this button to cancel alarm activation, i.e. reset the alarm outputs and silence the buzzer.

- **MODE (Mouse:) (Operate by Administrator/Supervisor)**

  In split-window display, press this button to change circularly the live/playback mode for the focus window and the other windows that form a rectangle on the screen.

- **SEQ (Mouse:)**

  Press this button to switch to or return from SEQ display mode. In SEQ display mode, each page in the sequence will be shown for the preset page dwelling time sequentially, and SEQ icon will be shown on the lower-right corner of the screen.

- **SEARCH (Mouse:) (Operate by Administrator/Supervisor)**

  In split-window display, press this button (or ▶/⏸) to display the search menus. The system will remember the last one the user chose.

- **REC (Mouse:)**

  Press this button to force manual recording. To stop manual recording, press it again. All cameras will be recorded as if the scheduled record is A/V, and REC icon will be shown on the lower-right corner of the screen if manual recording is ON.

- **MENU (Mouse:)**

  In split-window display, press this button to display the versatile menu.

- **PTZ (Mouse:)**

  In split-window display, press this button to enter PTZ control mode if the focus camera is a PTZ camera.

- **X2 (Mouse:)**

  In full screen display, press this button to enter Digital Zoom mode. Please refer to *Chapter 5.3 Digital Zoom* for the detailed operations in Digital Zoom mode.

- **▲▼◄►**

  Press these buttons to move focus. The title of the camera for the focus window is highlighted as shown on the screen.

- **MUTE (Mouse:)**

  Press this button to mute/not mute the audio.

- **(Mouse:)**

  Press these buttons to circulate up/down among the available split-window displays.

- **#**

  Press this button for page down in multi-split-window displays.

- **Peripherals (Mouse:)**

  Press this button to display the **GPS** data if there's GPS data fed to the DVR. Please select the Type, Position, Background, Rows, and number of Characters on the screen, and then press **ENTER** to display the GPS data, or **ESC** to cancel. For software V6.13 or above, the user may enable/disable OSD display for certain fields in main screen. In **GPS display**, press ▲▼ for page up/down, press **ENTER** to close it, or press **MENU/SEARCH/..** to call up the corresponding display as if there's no GPS display.

5.3 Digital Zoom

The system supports X2/X4 Digital Zoom function. To use this function, press **X2** button **(Mouse:)** in full screen display to enter Digital Zoom mode. There will be a zoom window shown in the video window as shown. The zoom window (a) will always be shown at zoom factor X1, (b) can be shown or hidden at zoom factor X2, and (c) will never be shown at zoom factor X4. The operations in Digital Zoom mode are as below:

- **▲▼◄► (Mouse: Click in the video window)**

  Press these buttons to

  (a) move the zoom window if it's shown in the video window, or

  (b) navigate the video window around if the zoom factor is X2 or X4.

- **ENTER (Mouse: Click in the video window)**

  Press this button to zoom in the zoom window, from X1 to X2 or from X2 to X4, if the zoom window is shown in the video window.

- **X2 (Mouse:)**

  Press this button to

  (a) show/hide the zoom window if the current zoom factor is X1/X2, or

  (b) zoom out the video window back to zoom factor X1 if the current zoom factor is X4.

- **ESC (Mouse:)**

  Press this button to escape from Digital Zoom mode, and return to normal full screen display. The video window will always return to zoom factor X1.

6 Main Screen

	Name	Description
1	Video Screen	Display live/playback video.
2	Camera ID	Shows ID number of the camera.
3	Time / Date	Shows the current recording time and date.
4	Audio	When audio is turned on, audio icon will be displayed on the screen.
5	Alarm recording percentage	Shows the percentage of alarm triggered recording.
6	Normal recording percentage	Shows the percentage of normal recording.

7 Menu

Press menu **(Mouse:)** to bring up a list of function setting menu.

There are a variety of displays under Menu display. Please refer to chart as below:

(Please refer to *Chapter 7.1 Login / Logout* for Login/Logout display)

- ▲▼◀▶

  Press these buttons to change the highlighted item.

- ENTER

  Press this button to enter the detailed display of the highlighted option. For the details of each option, please refer to the following sections.

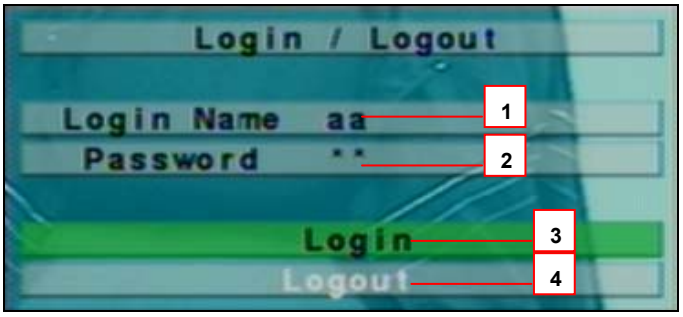
	Name	Description
1	Login/Logout	Press to login/logout of the system.
2	Status	Allow user to view the overall status of the system.
3	Volume Adjustment	There are a maximum of 4 live audio inputs. User can choose to enable or disable the audio feature and adjust the audio volume.
4	Video Adjustment	User can adjust the color, hue, saturation, contrast of the video image.
5	VGA Display	User can adjust the image output quality in terms of resolution, brightness, contrast, hue and saturation.
6	Backup Device	This window allows user to view the connection status of the backup device and to initiate data backup.
7	Setup	System features settings. *(Please refer to section 7.7 for detail information)*

8	Software Upgrade	This feature allows user to upgrade the software directly from the external devices such as DVD and USB flash drive.
9	Shutdown	Allows users to shutdown the system to prevent data loss.
10	ESC	Press this button to escape from Menu display, and return to split-window display.

7.1 Login / Logout

In **Menu** display, press ▲▼ to change the highlighted option to **Login / Logout**, and then press **ENTER (Mouse: Click in the menu item)** to call up **Login / Logout** display as shown below.

Click on the Login/Logout page to login the system and unlock the setting for changes.



■ ▲▼

Press these buttons to select the items.

■ **ESC (Mouse:)**

Press this button to exit without making changes.

	Name	Description
1	Login Name	Please refer to *chapter 5.1 Text Input* for text/numeric entry. *Note: The default login name is aa.*
2	Password	Please refer to *chapter 5.1 Text Input* for text/numeric entry. *Note: The default password is 11.*
3	Login	Click to login into the system. *Note: The control buttons will be unlocked after system login.*
4	Logout	Click to logout of the system. *Note: The control buttons will be locked after system logout.*

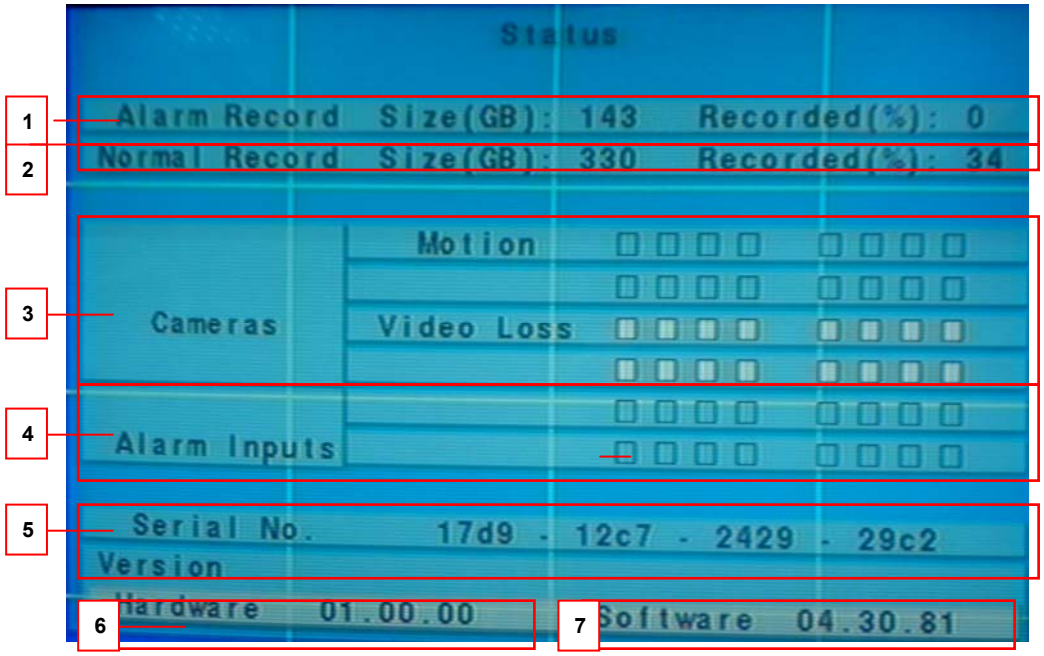
NOTE:

Administrator can set access authorities, edit and assign usernames and passwords to different users. Please refer to Chapter 7.7.7 Password for detail setup.

7.2 Status

In **Menu** display, press ▲▼ to change the highlighted option to **Status**, and then press **ENTER** to call up **Status** display as shown below.

This page will display the status of the system in terms of alarm and normal record size, camera status, hardware and software version.



■ **▲▼◄►**

Press these buttons to select the items.

■ **ESC**

Press this button to escape from this screen, and return to **MENU** display.

	Name		Description
1	Alarm record size & record percentage		- It shows the size of data in Gigabytes (GB) for alarm recording mode. - It shows the size of data (%) for alarm recording mode.
2	Normal record size & record percentage		- It shows the size of data (GB) for normal recording mode. - It shows the size of data (%) for normal recording mode.
3	Cameras	Motion	A white box for a specific camera appears upon motion trigger.
		Camera video loss	A white box for a specific camera appears when the video connection is lost.
4	Alarm input		A white box appears when an alarm triggered event occurs.
5	Serial Number		Use serial number to log into the system when both login name and password are forgotten.

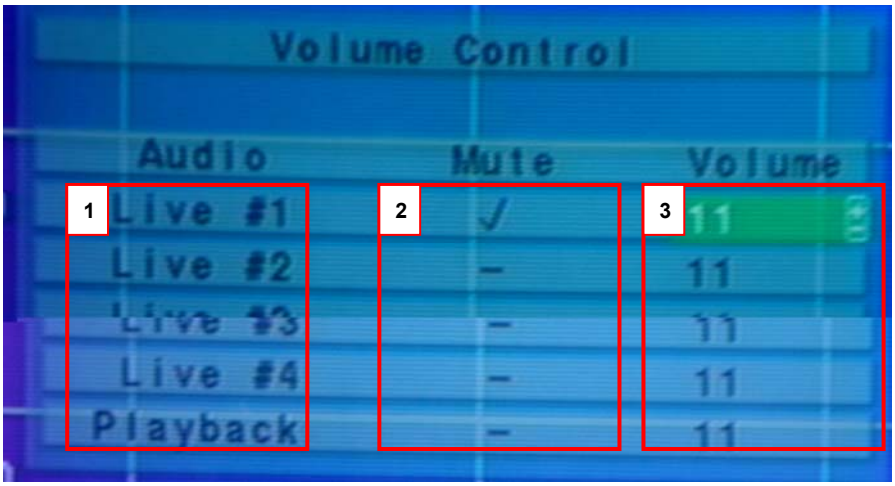
		Note: *The serial number can only be used once. Please contact the supplier for a new serial number.*
6	Hardware version	This is the hardware version information.
7	Software version	This is the software version information.

NOTE: If you forget Login Account and Password of SH330/530, please email us with the data of framed area 5,6,7 (Serial Number, Hardware & Software version). We will support the solution for you.

7.3 Volume

In **Menu** display, press ▲▼ to change the highlighted option to **Volume**, and then press **ENTER** to call up **Volume** display as shown below.

This feature allows user to setup the volume for each audio input up to a maximal of 4 audio inputs for recording purpose as well as the volume of the video during playback.



- ▲▼◄►

  Press these buttons to select the items.

- **ESC**

  Press this button to escape from this screen, and return to MENU display. If the contents have been modified, a Save dialog will be shown to ask the user to save the changes, press **ENTER** to exit and save, **ESC** to exit without saving.

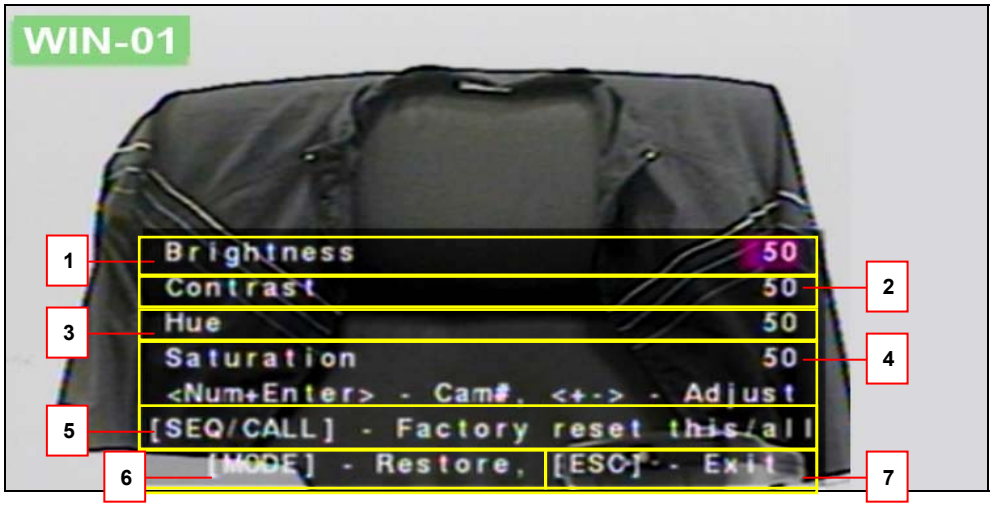
	Name	Description
1	Audio	This column shows the list of all the available audio feeds. Press ▲▼ to access the audio input that is to be setup.

2	Mute	to mute the selected audio channel. Press **ENTER** or ± to check(✓) / uncheck (-) this item.
3	Volume	Press ± to adjust the volume.

7.4 Video Adjustment

In **Menu** display, press ▲▼ to change the highlighted option to **Video Adjustment**, and then press **ENTER** to call up **Video Adjustment** display as shown below.

This setting allows user to adjust the quality of the video.



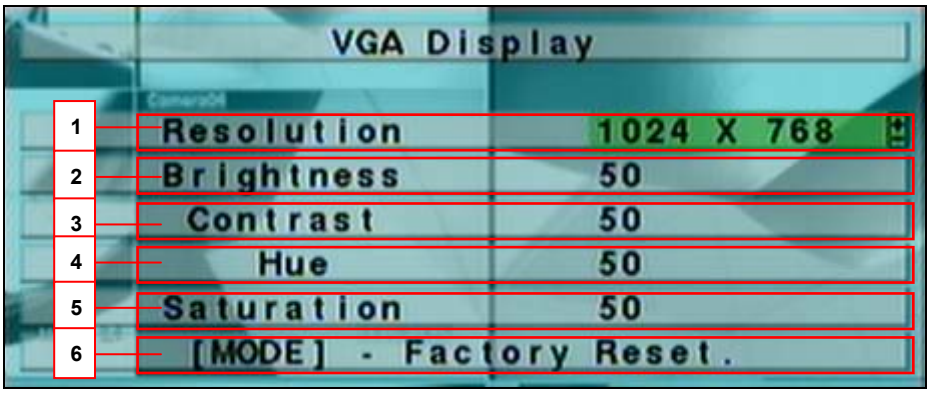
▲▼ Press these buttons to select the items.

	Name	Description
1	Brightness	Press ± to adjust the Brightness.
2	Contrast	Press ± to adjust the Contrast.
3	Hue	Press ± to adjust the Hue.
4	Saturation	Press ± to adjust the Saturation.
5	Numeric Button (Mouse: 1 2 3 4)	Press the numeric buttons 1~4 to view the image of the respected camera.
6	SEQ (Mouse:) /CALL	Click to apply the default video setting either to this camera or to all cameras.
7	MODE (Mouse:)	Click to restore the video setting to its previously saved setting.
8	ESC (Mouse: ESC)	Click this button to escape from this screen, and return to **MENU** display.

7.5 VGA Display

In **Menu** display, press ▲▼ to change the highlighted option to **VGA Display**, and then press **ENTER** to call up **VGA Display** dialog as shown below.

This section explains how to adjust the Resolution, Brightness, Contrast, Hue and Saturation of VGA display quality.



■ **▲▼ (Mouse: Click in the respective item)**

Press these buttons to select the items.

■ **ESC**

Press this button to escape from this screen, and return to previous display.

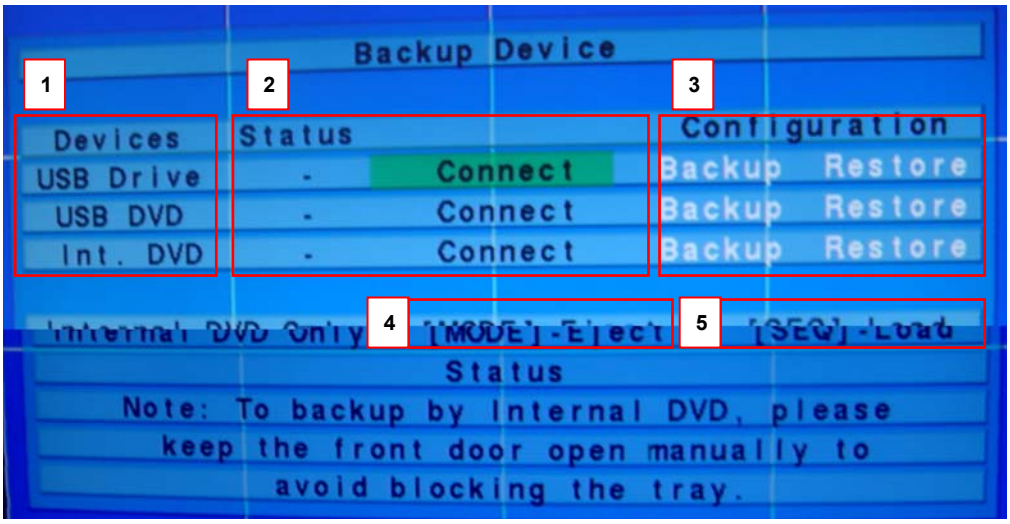
If the contents have been modified, a Save dialog will be shown to ask the user to save the changes, press **ENTER** to exit and save, **ESC** to exit without saving.

	Name	Description
1	Resolution	Press +/− to adjust the Resolution.
2	Brightness	Press +/− to adjust the Brightness.
3	Contrast	Press +/− to adjust the Contrast.
4	Hue	Press +/− to adjust the Hue.
5	Saturation	Press +/− to adjust the Saturation.
6	MODE **(Mouse: Left click)**	Click to restore the default setting.

7.6 Backup Device

In **Menu** display, press ▲▼ to change the highlighted option to **Backup Device**, and then press **ENTER** to call up **Backup Device** display as shown below.

This window allows user to view the connection status of the backup device and to initiate data backup.



■ ▲▼◄►

Press these buttons to select the items.

■ **ESC**

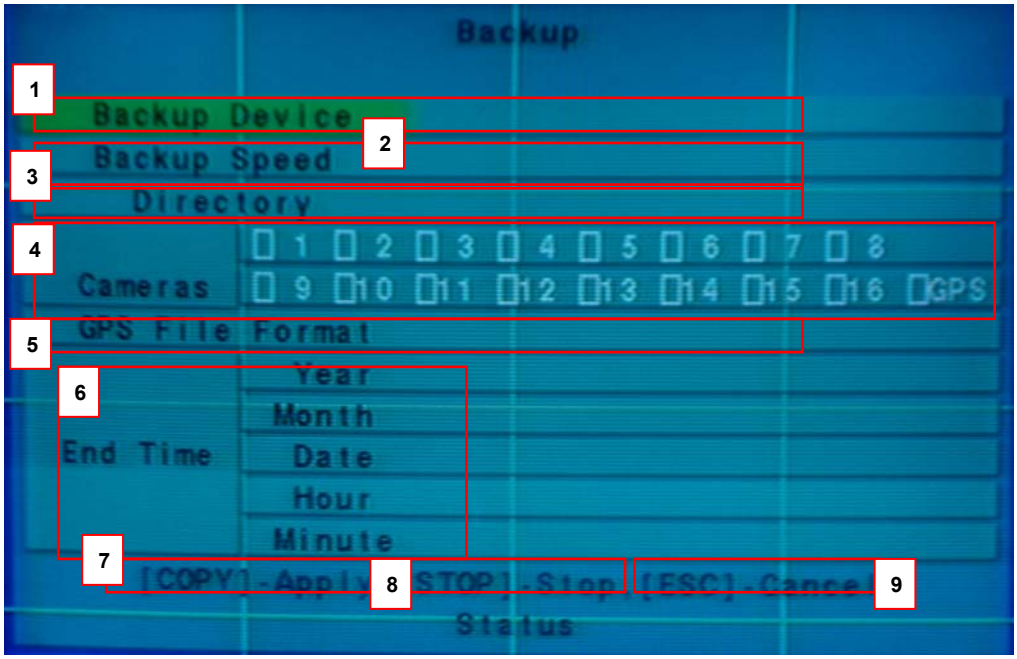
Press this button to escape from this screen, and return to **MENU** display.

	Name	Description
1	Devices	Display a list of supported storage devices. NOTE: *USB CD-RW is not supported by this standalone DVR system.*
2	Status	Display the connection status of external storage device. **Connect/Disconnect**–If the specific backup device is disconnected (as shown in Current Status), please plug the USB device in one of the USB ports of the system and/or insert a DVD for DVD device, and then press **ENTER** **(Mouse: Left click)** to command the system to connect with the device. If the specific device is already connected (EX. Read/write, as shown in Current Status), please press **ENTER** **(Mouse: Left click)** to command the system software to disconnect with the device, and then unplug the backup device from the backup port. NOTE: IF you unplug USB Mouse while DVR is on, the USB Mouse would not work even if you plug in the USB mouse again. Please reboot Standalone DVR with USB mouse plug in. Access to **BACK Device** operation, press **ENTER** to command the system to connect with the device.

3	Configuration	Click **Backup** **(Mouse: Left click)** to store the data files to an external storage device. **For software V6.13 or above, you may specify the directory to backup the configurations to.** Click **Restore** **(Mouse: Left click)** to restore the data files from the external device to the local system. **For software V6.13 or above, you may specify the directory to restore the configurations from.**
4	MODE	Eject the tray and disconnect. (for Internal DVD only)
5	SEQ	Load the tray and connect. (for Internal DVD only)

7.6.1 Backup Setting

Click on **CALL / COPY** ( ) to access the **Backup** setting.



■ ▲▼◄►

Press these buttons to select the items.

	Name	Description
1	Backup Device	The backup device connected to the system. Press **ENTER** on the left button to call up Backup Device dialog if there's no backup device connected. Press +/- buttons on the right selection to select the connected device for the backup. Please follow the steps described in *Chapter 7.6 Backup Device* to connect the backup device before copying.
2	Backup Speed	Click to adjust the backup process speed. (1-9, with 1 the lowest speed, 9 the highest speed.)

3	Directory	The directory in the backup device to store the archived files. Please follow the Text Input method described in *Chapter 5.1 Text Input* to input the directory.
4	Cameras	The video/audio of the cameras to be archived. Press **ENTER** or **+/-** to select/deselect each of the selectable cameras. **If the camera with GPS data is selected, the GPS data will be saved with the camera video in the same file. The user may save GPS data only (without saving camera video) by selecting GPS.**
5	GPS File Format	for the backup of GPS data only. The supported formats are TXT and KML. Click ± to set the GPS file format to be saved.
6	End Time	(Year, Month, Date, Hour, Minute) for the recorded video/audio for the backup without playback of Search By Time. The files will be backup from the start time to the end time when the user press the COPY button to start copying. Click ± to set the backup end time in terms of year, month, date, hour and minute. Note: *Please go to search by Time setting to set the start time.*
7	COPY	Press this button to start backup (copy) or apply the revised settings if it's copying, and return to the previous display. There will be a Copy icon on the lower-right corner indicating that the selected video/audio is being archived to the storage device. For DVD disc, the files won't be written to the disc until the storage size reaches 1 GB or the user stop copying. Writing to the disc may take more than 1 minute for every 100 MB (depending on the disc type). **Note: For internal DVD, please open the front door in order not to block the tray from ejecting, esp. while it's in backup process. Blocking the tray from ejecting may damage the DVD writer.**
8	STOP	Click to stop the backup process.
9	ESC	Click to exit the backup setting, and return to

		previous display.

Except the playback buttons, the user can still do all the other operations in split-window display as if there is no playback. Please refer to *Chapter 5.2 Basic Operations* for the operations of the other buttons.

Attention 1: *To view the backup data playback, please access the IE interface of the system and press* *to locate the data file.*

Attention 2: *Please refer to Standalone DVR Hardware Accessory Support List.*

- USB 2.0 Device Support

  USB 2.0 Storage Devices (Pen Drive)–USB-Storage Enclosures 5.25" – Macpower's Alumni Prefect USB 2.0 - **PF-U2MS**.

  USB-Disk Storage –
  Transcend's JetFlash 150/V60 Series,
  Apacer's Handy Steno AH220,
  Pretec's i-Disk Wave 512M-Black
  Kingston's DataTraveler USB Flash Driver(DTI/512FE)
  SanDisk's Cruzer micro USB Flash Driver
  Sony's MICRO VAULT Classic Series

- 2.5" SATA H.D.D. External Enclosure

  WEIKENG's W-Box 2.5" External Enclosure
  ETINGO's External 2.5" HARD Drive Enclosure
  NOTE: H.D.D. have to format to be FAT32 type.

- USB MOUSE Support

  MICROSOFT
  AMICE(AF-205)
  ACROX
  WINTEK(WSS60)
  DETROIS(CM-318)

- DVD Writer Support

  Asus's DRW-1608P Series,
  Pioneer's DVR-A11, DVR-X152 Series
  BenQ's EW200G Series
  LITEON's LightScribe DVD Writer SHM-165H6S, 20X DVD Writer DX-20A4P
  Sony's DVD/CD Rewritable Drive Model DRX-810UL Series
  NEC's DVD/CD Rewritable Drive Model ND-4550A Series
  HP's dvd9404e External 18X Super Multi DVD Writer Series
  LG / GE20LU10

- DVD Disc Support

  Some DVD Discs Tested – Only single-side, single-layer disc is supported

  Infomedia's DVD+R 16X

  Mitsubishi's DVD+RW 1-4X

  Philips's DVD+RW 1-4X

  Ritek's DVD-R 8X

  Ritek's DVD+RW 1-4X

  Verbatim's DVD+RW 1-4X

Note: The format of the GPS filename is YYYYMMDD-hhmmss.txt (or .kml), where YYYY stands for year, MM month, DD date, hh hour, mm minute, and ss second. GPS file can be displayed in the archived file list, but cannot be played. Please use GPS applications such as Google Earth, PaPaGO, etc. to read/convert its contents.

Note : For each camera and each backup, a batch file will be generated as well as the backup files. A directory "/SelfPlayer" will also be generated if it's not existing in the backup storage device. The user can use the batch file to self-playback the corresponding backup files in a PC. If the PC has not been installed with the required player components, those components will be installed by running the batch file except Windows Vista. For Windows Vista, please run /SelfPlayer/SelfPlayerInstall.exe manually to install the required player components. To copy self-playback files, please copy the batch file and the backup files to the destination directory, and copy the whole directory "/SelfPlayer" to the root directory of the destination device.

7.7 Setup

In **Menu** display, press ▲▼ to change the highlighted option to **Setup**, and then press **ENTER (Mouse: Left click)** to call up **Setup** display as shown below.
(To enter Setup Menu display of the system, please login as Administrator first.)

- ▲▼

  Press these buttons to select the items.

- **ENTER**

  Press this button to enter the setup of the highlighted option. For the details of each option, please refer to the following sections.

- **ESC**

  Press this button to escape from this screen, and return to **MENU** display.

	Name	Description
1		Pre-Camera
2		Camera
3		Alarm
4		SEQ Display
5		Schedule Record

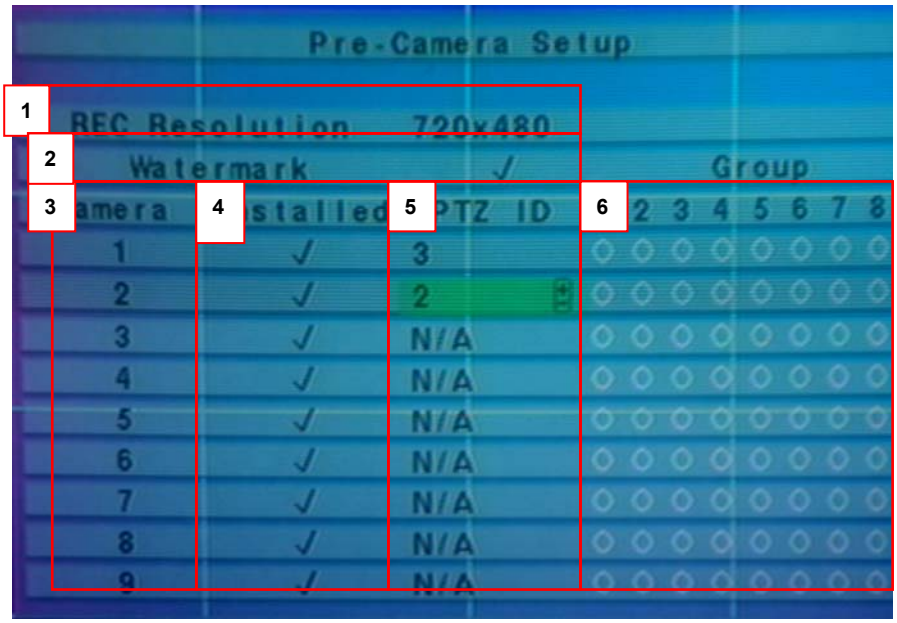
6		HDD
7		Password
8		System
9		RS-232 / 422 / 485
10		Network
11		Factory Default
12		ESC

If the user wants to reset all the settings to factory default values, he/she may press ▲▼◄► to change the highlighted option to Factory Defaults, and then press **ENTER**. A confirmation dialog will be shown, press **ENTER** again to make the changes, **ESC** to not do it.

7.7.1 Pre-Camera

In **Setup** display, press ▲▼ to change the highlighted option to **Pre-Camera**, and then press **ENTER** **(Mouse: Left click)** to call up **Pre-Camera** display as shown below.

There are up to 16, 9, or 4 cameras which can be connected to the system. This section shows how to change the recording Resolution, Setup the number of camera installed and assigning PTZ Speed Dome ID.



■ ▲▼◄►

Press these buttons to select the items.

■ **Numeric (Mouse: 1 2 3 4)**

Press these buttons to select the camera.

■ **ESC**

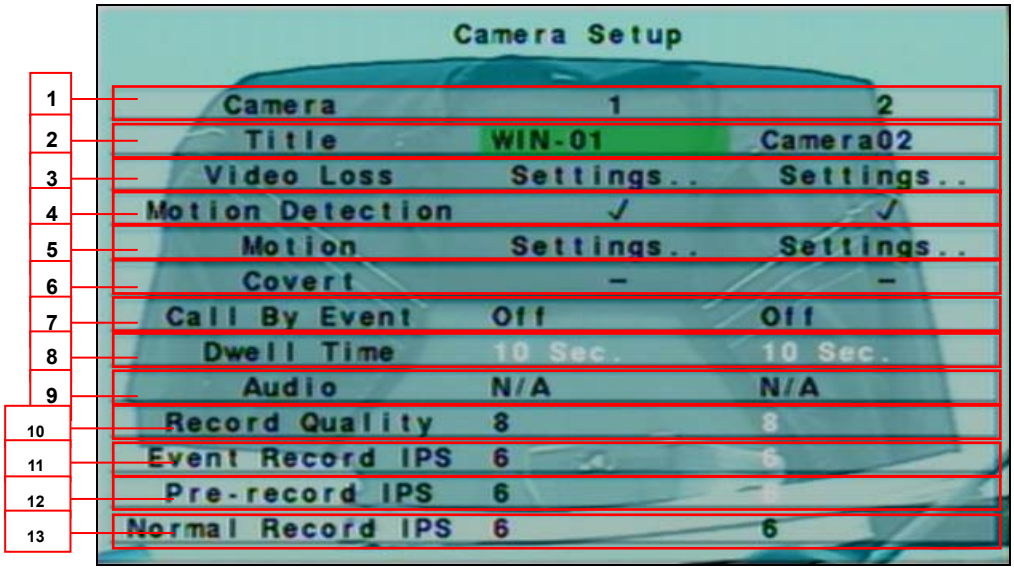
Press this button to escape from this screen, and return to previous display.

	Name	Description
1	REC Resolution	Press ± to adjust the recording resolution to 360x240, 720x480 or 720x240.
2	Watermark	to record with digital watermark or not. If yes, all the recorded images for all the cameras will have digital watermark embedded. Press **ENTER** or ± **(Mouse: Left click)** to check/uncheck this item. The default setting is "✓" - checked.
3	Camera	This shows the number of supported camera of the system.
4	Installed	whether this camera is installed or not. If installed, the following items will be settable. Press **ENTER** or ± **(Mouse: Left click)** to check/uncheck this item. The default setting is "✓" - checked.
5	PTZ ID	Press ± to assign each PTZ an ID.
6	Group	This column allows user to assign each camera into different surveillance groups.

7.7.2 Camera

In **Setup** display, press ▲▼ to change the highlighted option to **Camera**, and then press **ENTER (Mouse: Left click)** to call up **Camera Setup** display as shown below.

This is to enable user to configure the camera setting and to set up the video loss trigger, motion detection, recording quality and recording rate.



- ▲▼◄► **(Mouse: Left click)**

  Press these buttons to select the items.

- **Numeric (Mouse: 1 2 3 4)**

  Press these buttons to select the camera.

- **COPY** ( )

  Press this button to copy all the settings - excluding detailed Motion settings, Video Loss settings, Title/Audio - of the focus camera to all the following cameras. (EX. focus camera is 5, its settings will be copied to those of cameras 6-16.)

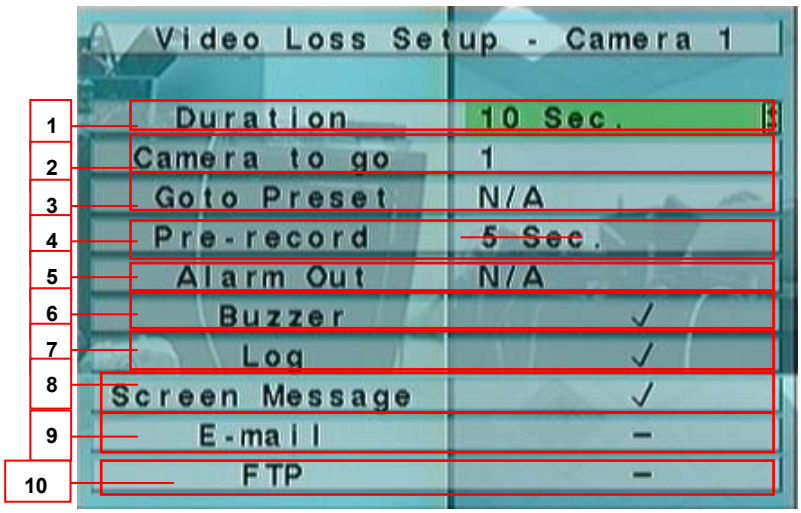
- **ESC**

  Press this button to escape from this screen, and return to previous display.

	Name	Description
1	Camera	The number corresponds to the camera supported.
2	Title	User can assign a title to different camera for identification purpose. *(Please refer to chapter 5.1 Text Input on text/numeric entry)*
3	Video Loss (**Settings..**)	A warning can be triggered to alert the administrator during video loss. Press **ENTER** **(Mouse: Left click)** in **Settings..** to call up **Video Loss Setup** display for the camera. *Please refer to section 7.7.2.1 on video loss for detail configuration*
4	Motion Detection	whether the motion detection of this camera is enabled or not. (Note : this field has no effect for the Smart Search information.) Press **ENTER** or ± to check (✓) or uncheck (-) this item. The default setting is "✓" - checked.
5	Motion (**Settings..**)	Used to setup the motion settings, used for Motion Detection or Smart Search, for this camera. Press **ENTER** **(Mouse: Left click)** in **Settings..** to call up **Motion Setup** display for the camera. Please note that if the Motion Detection is disabled, the default factory motion settings should work fine for Smart Search. *Please refer to section 7.7.2.2 on motion setting for detail information)*
6	Covert	covert or not. If the camera is covert, the video of this camera can only be seen if the user has logged in as Administrator. Press **ENTER** or ± **(Mouse: Left click)** to check(✓) or uncheck (-) this item. *NOTE: When covert is activated, only administrator/supervisor level users can view the live video of the respected camera.*
7	Call By Event (Call Monitor)	This feature will cause a specified channel to display upon a specific event trigger.
8	Dwell Time	User may adjust the value to determine the display time of the call monitor.
9	Audio	The audio setting allows user to turn on/off the sound recording option.
10	Record Quality	Press ± to adjust the recording quality from 1 (low) to 9 (highest).
11	Event Record IPS	Press ± to adjust the event recording rate as Image per Second (IPS).
12	Pre-Record IPS	Press ± to adjust the pre-recording rate (IPS).
13	Normal Record IPS	Press ± to adjust the normal recording rate (IPS).

7.7.2.1 Video Loss Setting

In **Setup** display, press ▲▼ to change the highlighted option to **Video Loss Settings..** , and then press **ENTER** to call up **Video Loss Setup** display as shown below.



■ ▲▼ **(Mouse: Left click)**

Press these buttons to select the items.

■ **Numeric (Mouse: 1 2 3 4)**

Press these buttons to select the camera.

■ **COPY** ( )

Press this button to copy the Video Loss settings of the focus camera to all the following cameras. (EX. focus camera is 5, its Video Loss settings will be copied to those of cameras 6-16.)

■ **ESC**

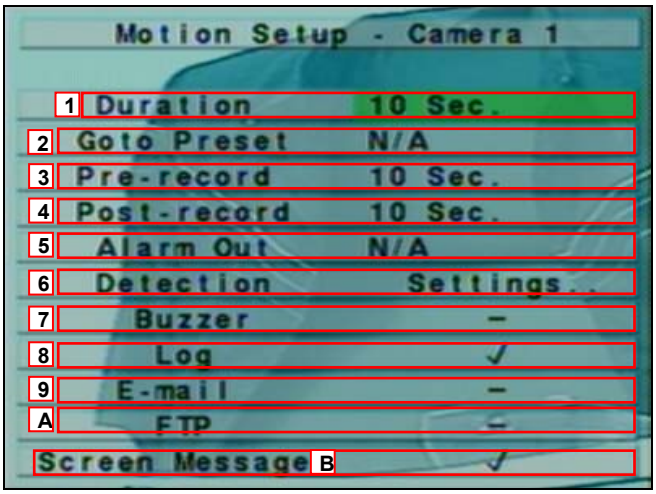
Press this button to escape from this screen, and return to previous display.

	Name	Description
1	Duration	Press ± to adjust the length of warning period upon video loss trigger.
2	Camera to go	the camera to go to the preset position in next field after video loss is detected for this camera. "Camera to go" camera must be a PTZ camera.
3	Goto Preset	to define the preset position to go to for the "Camera to go" Camera in last field if video loss is detected for this camera. For more details about preset locations, please refer to *Chapter 8 PTZ Control*.

4	Pre-record	Press +/− to adjust the transition period before initiating the recording prior to motion detection.
5	Alarm Out	Click +/− to select the video loss triggered alarm output.
6	Buzzer	Press **Enter** or +/− **(Mouse: Left click)** to check (✓) or uncheck (-) this item. To activate the buzzer warning that will be triggered upon video loss.
7	Log	Press **Enter** to adjust (Enable:✓ / Disable:-). When enabled, the system will record all video loss history.
8	Screen Message	Press **Enter** to adjust (Enable:✓ / Disable:-). Choose to enable/disable event message being displayed on the screen.
9	Email	Press **Enter** or +/− to check (✓) or uncheck (-) this item. When check (✓), this feature will trigger text or figure files be sent to email when video loss is detected.
10	FTP	Press **Enter** or +/− to check (✓) or uncheck (-) this item. When check (✓), this feature will trigger video files be sent to the FTP server upon video loss detection.

7.7.2.2 Motion Setting

In **Setup** display, press ▲▼ to change the highlighted option to **Motion Settings..** , and then press **ENTER** to call up **Motion Setup** display as shown below.



■ ▲▼ **(Mouse: Left click)**

Press these buttons to select the items.

■ **Numeric (Mouse: 1 2 3 4)**

Press these buttons to select the camera.

- **COPY** ( )

  Press this button to copy the Video Loss settings of the focus camera to all the following cameras. (EX. focus camera is 5, its Video Loss settings will be copied to those of cameras 6-16.)

- **ESC**

  Press this button to escape from this screen, and return to previous display.

	Name	Description
1	Duration	Press +/− to adjust the length of warning period upon motion trigger.
2	Goto Preset	User can set the monitor to display the defined preset camera image upon detecting a motion, please refer to *Chapter 8 PTZ Control*.
3	Pre-Record	Press +/− to adjust the transition period before initiating the recording prior to motion detection.
4	Post-record	Press +/− to adjust the transition period before initiating the recording after motion detection.
5	Alarm Out	Press +/− to select the motion triggered alarm output.
6	Detection **(Settings..)**	This setting allows user to define the area for motion to be detected. Used to setup the motion detection settings, including detection area and sensitivity, when motion is detected for this camera. Please note that the detection area and sensitivity are also used for the Smart Search information. There won't be any Smart Search information stored outside the detection area. So, it's better to enable the whole area if the motion detection for the camera is disabled (and only Smart Search is used). Press **ENTER** in Settings.. to call up Motion Detection Setup (as shown) for this camera. *(Please refer to **NOTE Detection Setting** for detail configuration)*
7	Buzzer	Press **Enter** or +/− **(Mouse: Left click)** to check (✓) or uncheck (-) this item. When checked, to activate the buzzer warning that will be triggered upon motion detection.
8	Log	Press **Enter** or +/− to check (✓) or uncheck (-) this item. When checked, the system will record all video loss history.
9	Email	Press **Enter** or +/− to check (✓) or uncheck (-) this item. When checked, enable this feature will trigger text or figure files

		be sent to email when motion is detected.
A	FTP	Press **Enter** or [+/-] to check (✓) or uncheck (-) this item. When checked, enable this feature will trigger video files be sent to the FTP server upon motion detection.
B	Screen Message	To display the event message on the screen or not. Press **Enter** or [+/-] to check (✓) or uncheck (-) this item. The default setting is "✓" - checked.

NOTE Detection Setting

Press **Menu > Setup > Camera > Motion Setting > Detection Settings**

Camera01
1 [+/-] - Resize, 2 [ENTER] - Set/Reset 3 [ESC] - Exit
4 [MODE] - Set/Reset whole area 5 [SEARCH] - Test
6 [SEQ/CALL] - Decrease/Increase sensitivity
7 Sensitivity = 08

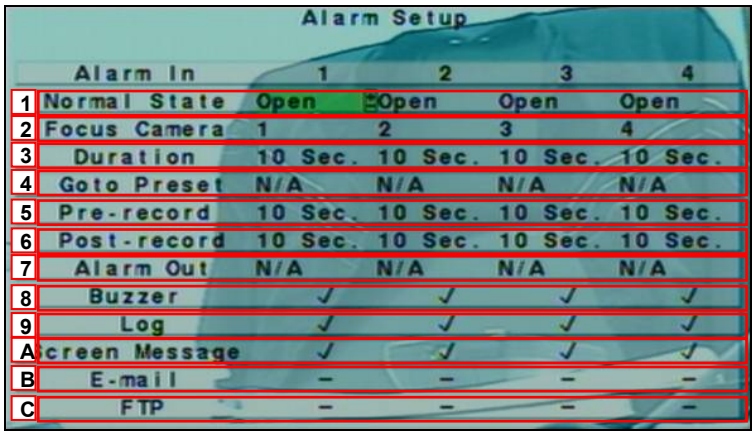
	Name	Description
1	[+/-]	Click to resize the motion detection area.
2	Enter	Press to set/reset the changes made.
3	ESC	Press to exit the setting.
4	MODE	Press to set/reset the whole area as the motion detection zone.
5	SEARCH	Press to test the motion detection feature.

6	SEQ/CALL	Press to adjust the sensitivity of motion being detected.
7	Sensitivity	This shows the sensitivity value.

7.7.3 Alarm

In **Setup** display, press ▲▼ to change the highlighted option to **Alarm**, and then press **ENTER** to call up **Alarm** display as shown below.

This feature allows administrator to define the condition for the alarm to be triggered.


Alarm Setup
Alarm In 1 2 3 4
1 Normal State Open Open Open Open
2 Focus Camera 1 2 3 4
3 Duration 10 Sec. 10 Sec. 10 Sec. 10 Sec.
4 Goto Preset N/A N/A N/A N/A
5 Pre-record 10 Sec. 10 Sec. 10 Sec. 10 Sec.
6 Post-record 10 Sec. 10 Sec. 10 Sec. 10 Sec.
7 Alarm Out N/A N/A N/A N/A
8 Buzzer √ √ √ √
9 Log √ √ √ √
A Screen Message √ √ √ √
B E-mail – – – –
C FTP – – – –

- ▲▼◄► **(Mouse: Left click)**

  Press these buttons to select the items.

- **Numeric (Mouse: 1 2 3 4)**

  Press these buttons to select the camera.

- **COPY** ( )

  Press this button to copy the Video Loss settings of the focus camera to all the following cameras. (EX. focus camera is 5, its Video Loss settings will be copied to those of cameras 6-16.)

- **ESC**

  Press this button to escape from this screen, and return to previous display.

	Name	Description
1	Normal State	Press ± to adjust the status of the normal state to either open or close. *NOTE: Please set the Normal State to N/A when there is no alarm connected.*
2	Focus Camera	Administrator can prioritize the camera that will respond to a specified alarm input.

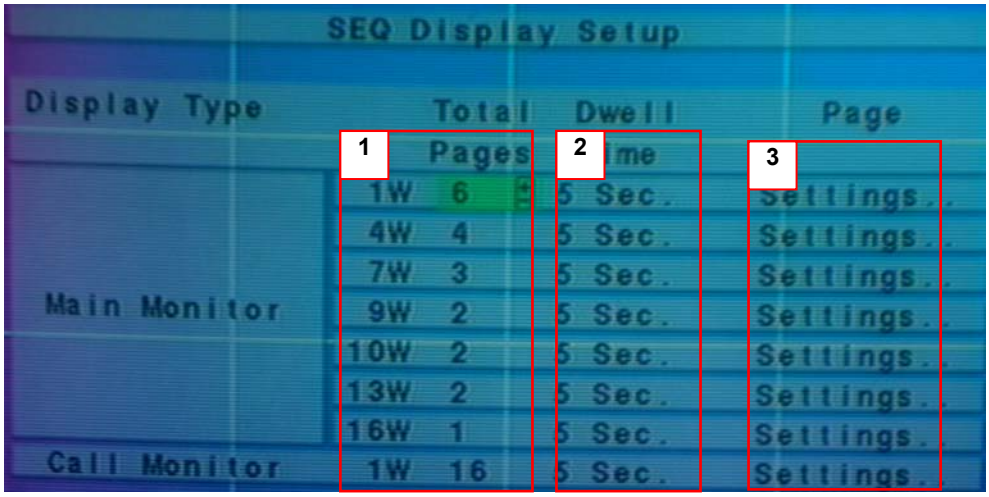
3	Duration	Press ± to adjust the length of warning period when the alarm is triggered.
4	Goto Preset	User can set the monitor to display the defined preset camera image upon an event trigger. Please refer to *Chapter 8 PTZ Control*.
5	Pre-record	Press ± to adjust the transition period before initiating the recording prior to event trigger.
6	Post-record	Press ± to adjust the transition period before initiating the recording after an event trigger.
7	Alarm out	Click ± to select the alarm output triggered by a specific event.
8	Buzzer	Press **Enter** or ± to check(✓) / uncheck (-) this item. To activate the buzzer warning due to an alarm trigger.
9	Log	Press **Enter** or ± to check(✓) / uncheck (-) this item. When checked, the system will record all video loss history.
A	Screen Message	Press **Enter** or ± to check(✓) / uncheck (-) this item. Choose enable (check:✓) / disable(uncheck: -) event message being displayed on the screen.
B	E-mail	Press **Enter** or ± to check(✓) / uncheck (-) this item. Enable (check:✓) this feature will trigger text or figure files be sent to the email upon an event trigger.
C	FTP	Press **Enter** or ± to check(✓) / uncheck (-) this item. Enable (check:✓) this feature will trigger video files be sent to the FTP server upon an event trigger.

NOTE:
User can press COPY (⎘) to copy the setting of alarm 1 to all subsequent alarm settings.

7.7.4 SEQ Display Setup

In **Setup** display, press ▲▼ to change the highlighted option to **SEQ Display**, and then press **ENTER** to call up **SEQ Display Setup** display as shown below.

This section explains how to set up the surveillance sequence order for both main monitor and call monitor.



- ▲▼◄► **(Mouse: Left click)**

  Press these buttons to select the items.

- **ESC (Mouse: ESC)**

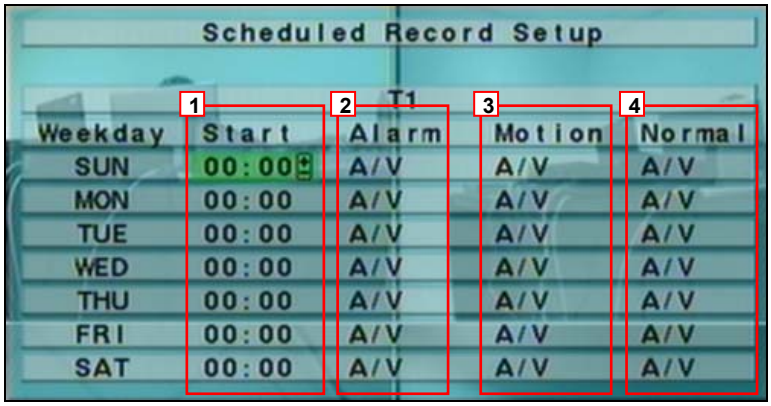
  Press this button to escape from this screen, and return to previous display.

	Name	Description
1	Total Pages	Press + − to set the total of display channels for each screen.
2	Dwell Time	Press + − to set the display time (3~60 seconds) of each camera for each sequential rotation.
3	Page setting	- Use the numeric buttons **(Mouse: 1 2 3 4)** to set the sequence order of display cameras. - Press + − **(Mouse: ▲▼)** to view the camera that is set to the page according to the sequence order.

7.7.5 Scheduled Record

In **Setup** display, press ▲▼ to change the highlighted option to **Scheduled Record**, and then press **ENTER** to call up **Scheduled Record Setup** display as shown below.

This setting is for user to define and adjust the recording schedule. The system supports up to 16 different schedules with each T represents each schedule. The recording schedules automatically apply to all cameras instead of individual camera.



- **▲▼◄► (Mouse: Left click)**

  Press these buttons to select the items.

- **COPY** ( )

  Press this button to copy the settings of the focus weekday to all the following weekdays. (EX. focus weekday is TUE, its settings will be copied to those of weekdays WED-SAT.)

- **ESC**

  Press this button to escape from this screen, and return to previous display.

	Name	Description
1	Start Time	Press to set the recording start time. NOTE: *User can set up to a maximum of 16 different schedule segments. The beginning of the new schedule segment represents the end of the previous schedule segment. Thus, a warning dialog box will appear when two time schedule segments overlap.*
2	Alarm	Press to set the recording criteria as audio (A), video (V) or both (A/V) when the alarm is triggered. "OFF" is newly added for alarm detection OFF.
3	Motion	Press to set the recording criteria as audio (A), video (V) or both (A/V) when the motion is detected. "OFF" is newly added for alarm detection OFF.
4	Normal	Press to set the recording criteria as audio (A), video (V) or both (A/V) under normal recording circumstance.

NOTE: User can press COPY ( ) to copy the setting of alarm 1 to all subsequent alarm settings.

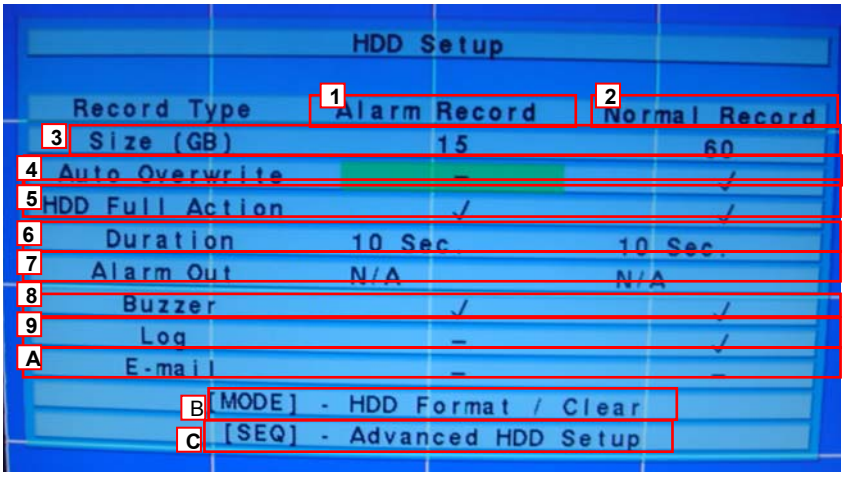
NOTE: In a time segment, if both Alarm and Motion are set to "OFF", the audio/video will be treated as Normal unless there's Video Loss.

7.7.6 HDD

In **Setup** display, press ▲▼ to change the highlighted option to **HDD**, and then press **ENTER** to call up **HDD Setup** display as shown below.

In the surveillance applications, alarm video/audio is much more important than normal video/audio. So, this digital video/audio recorder is designed to allow the user to divide each HDD into alarm partition and normal partition. And, alarm video/audio will be recorded in alarm partition, normal video/audio in normal partition.

The HDD Setup allows the administrator to format/clear each HDD, set Alarm Record size and Normal Record size of each HDD, and define the behaviors for Alarm Record and Normal Record if it reaches the end of the last HDD in the system.



- ▲▼◄► **(Mouse: Left click)**

  Press these buttons to select the items.

- **ESC**

  Press this button to escape from this screen, and return to previous display. If the Save dialog will be shown to ask the user to save the changes, press **ENTER** to exit and save, **ESC** to exit without saving.

	Name	Description
1	Alarm Record	This is the recording under alarm triggered condition.
2	Normal Record	This is the recording under normal circumstance.
3	Size (GB)	The total HDD storage in GB (Giga-Byte) for Alarm Record and Normal Record respectively. This item is just for information. Please refer to *Chapter 7.6.6.1 HDD format and Clear* for more detailed information and setup of each individual HDD. **Please note that if the total alarm record size is zero, the alarm video/audio will be recorded in**

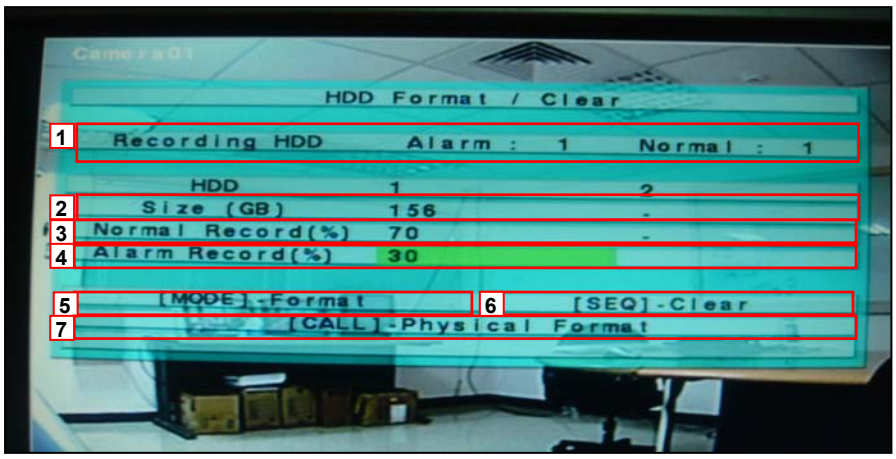
		normal record partition for software V6.13 or above.
4	Auto Overwrite	When auto overwrite is enabled(check:✓), new data will automatically replace old data under HDD space shortage condition. If Auto Overwrite is disabled and the Alarm/Normal Record disk drive capacity reaches the end, the system will not overwrite the recorded video/audio, and hence not record Alarm/Normal video/audio, until the user presses the Alarm Reset button. Press **ENTER** or +/- to check/uncheck this item. The default setting is "✓" - checked.
5	HDD Full Action	Press **ENTER** or +/- to check(✓) or uncheck (-) this item. This feature enables the system to take appropriate actions when the HDD capacity is short.
6	Duration	Press +/- to adjust the length of warning period due to HDD capacity shortage.
7	Alarm Out	Click +/- to select the alarm output triggered due to HDD capacity shortage.
8	Buzzer	Click **Enter** or +/- to check(✓) or uncheck (-) this item. To activate the buzzer warning that is triggered due to HDD capacity shortage.
9	Log	Click **Enter** or +/- to check(✓) or uncheck (-) this item. When enabled(check: ✓), the system will record all video loss history.
A	E-mail	Click **Enter** or +/- to check(✓) or uncheck (-) this item. Enable this feature will trigger text or figure files be sent to the email due to HDD capacity shortage triggering.
B	Mode **(Mouse: Left click)**	Press this button to format/clear the HDDs as described in Section 7.7.6.1.
C	SEQ **(Mouse: Left click)**	Press this button to enter Advanced HDD Setup as described in *Section 7.7.6.2*.

Attention:
It is recommended that format every new HDD installed to clear all possible old data.

7.7.6.1 HDD format and Clear

In **HDD Setup** display, press **MODE** to call up **HDD format and Clear** display as shown below.

Each of the HDDs must be formatted before it can be used to record video/audio. **The HDD Format/Clear screen allows the administrator to format and/or clear each HDD, and set the size for Alarm Record partition and Normal Record partition for each HDD.** Please note that the HDD IDs for the internal HDDs in the DVR start from ID 1, lower for IDE and higher for SATA, and the HDDs in the farthest Hard Disk Box have the lowest HDD ID next to internal HDDs.



■ ▲▼◄►

Press these buttons to select the items.

■ **ESC**

Press this button to escape from this screen, and return to **HDD Setup** display. If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving.

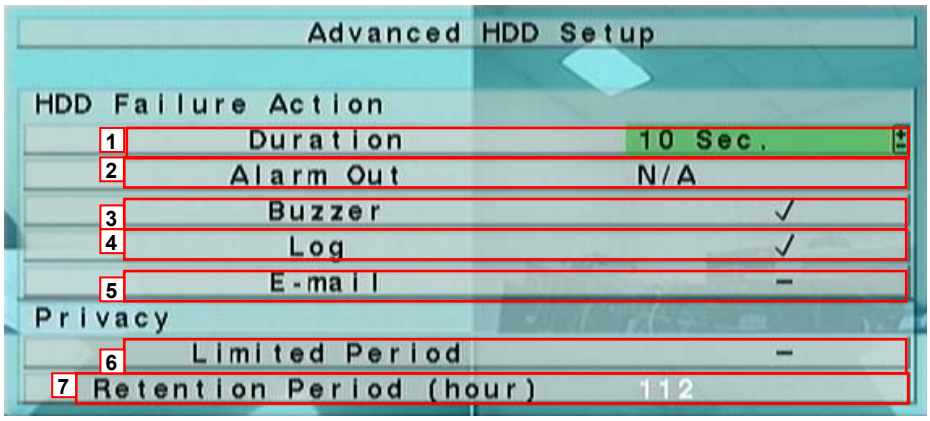
	Name		Description
1	Recording HDD	Alarm	the current HDD for alarm recording. This item is just for information.
		Normal	the current HDD for normal recording. This item is just for information.
2	Size		This shows the total storage capacity in gigabyte.
3	Normal Record		This shows the partition size (%) that stores normal recording data.

4	Alarm Record	This shows the partition size (%) that stores alarm recording data. Please follow the Text Input method described in *Chapter 5.1 Text Input* to change the value. **Please note that if the alarm record percentage for all HDDs is zero, the alarm video/audio will be recorded in normal record partition for software V6.13 or above.**
5	Mode	Click to format the HDD. Note: If the HDD has not been formatted yet, it will be formatted and partitioned with default record size, 30% for Alarm record and 70% for Normal record. If it has been formatted before, it will be formatted according to the Alarm REC Size (%) and Normal REC Size (%) displayed on the screen, but the previously recorded contents within the new size won't be cleared and will be accessible.
6	SEQ	Click to clear the HDD. **Note**: If the HDD has not been formatted yet, it will be formatted and partitioned with default record size, 30% for Alarm record and 70% for Normal record. If it has been formatted (and recorded) before, it will be partitioned according to the Alarm Record Size (%) and Normal Record Size (%) displayed on the screen, and the previously recorded contents will all be cleared.
7	CALL	Press this button to physically format the selected HDD. A confirmation dialog will be shown on the screen, press **ENTER** to confirm, or **ESC** to cancel. Please note that the recording will be always optimized for performance & lifetime no matter it's for the first time or for the one hundredth time. The formatting would take less than 1 minute. We strongly recommend that the user use this physical format function to format the HDD for the first time. **Note**: The HDD will be physically formatted and partitioned with default record size, 30% for Alarm record and 70% for Normal record. All the previously recorded contents will be cleared.

7.7.6.2 Advanced HDD Setup

In **HDD** Setup display, press **SEQ** to call up **Advanced HDD Setup** display as shown.

The HDD Failure Action in Advanced HDD Setup allows the administrator to define how the system responds to the detected HDD failure, while the Privacy settings allow the administrator to set the DVR to record for Limited Period and the Retention Period of its HDD storage. **For software V6.13 or above, the HDD Failure Action will be triggered if there's no available formatted HDD detected. When alarm record partition full, store to normal record partition (and treated as normal video).**



- ▲▼

  Press these buttons to select the items.

- **ESC**

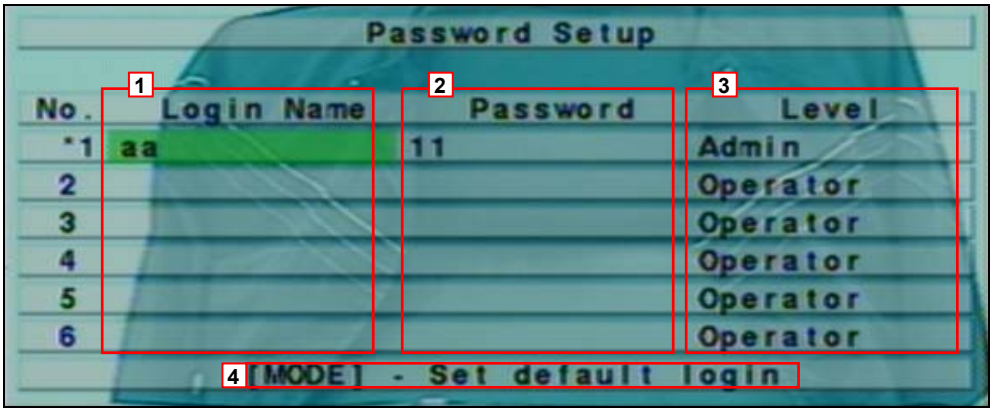
  Press this button to escape from this screen, and return to HDD Setup display. If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving.

	Name	Description
1	Duration	Response duration to define at most how long (in seconds) the Alarm Out relay and the Buzzer will keep being triggered after HDD failure is detected. Press ± buttons to adjust the value. (3 seconds - 60 minutes, discrete, '-' for 'Forever')
2	Alarm Out	To define which Alarm Output will be triggered when HDD failure is detected. Press ± buttons to select none (N/A) or one of the Alarm Outputs (1-2).
3	Buzzer	To activate the internal Buzzer or not when HDD failure is detected. Press **ENTER** or ± to check/uncheck this item. The default setting is "✓" - checked.
4	Log	To log to event logs or not. Press ENTER or ± to

		check/uncheck this item. The default setting is "✓"- checked.
5	E-mail	To send the event e-mail to remote station or not. The e-mail will be sent to the predefined receivers when the event is triggered. Press **ENTER** or ± to check/uncheck this item. The default setting is "–" - unchecked.
6	Limited Period	Whether the HDD storage is for limited period or not. Press ENTER or ± to check/uncheck this item. The default setting is "–" - No.
7	Retention Period (hour)	The retention period of the HDD storage if Limited Period is "✓". Please follow the Text Input method described in *chapter 5.1 Text Input* to modify this item. If this item is set as 0, it will be treated as No Limited Period.

7.7.7 Password

In **Setup** display, press ▲▼ to change the highlighted option to **Password**, and then press **ENTER** to call up **Password Setup** display as shown below.



■ ▲▼◄►

Press these buttons to select the items.

■ **ESC**

Press this button to escape from this screen, and return to previous display.

If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving.

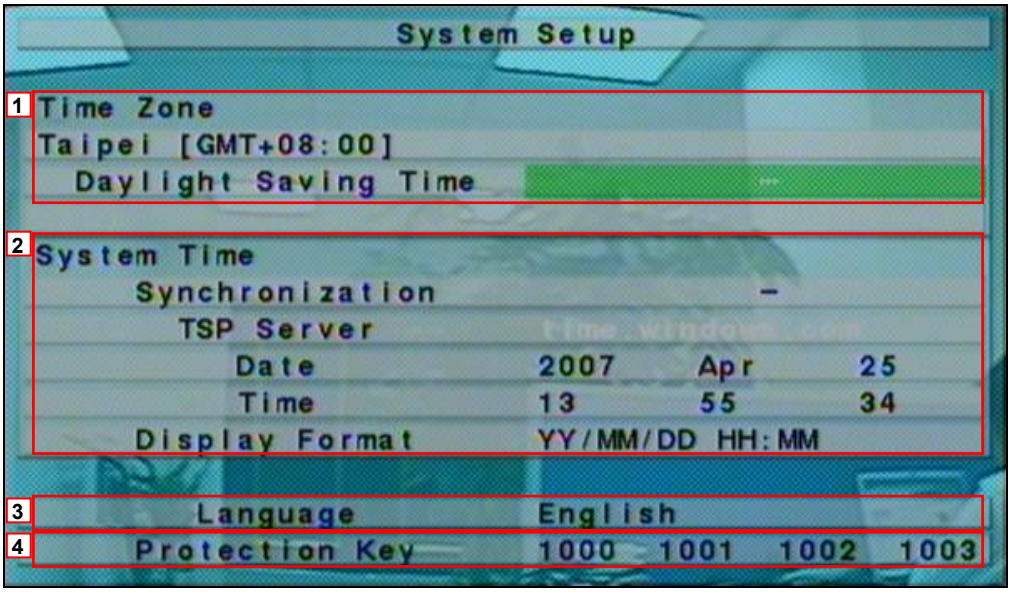
The Password Setup allows the administrator to add new users, delete existing ones, and/or modify the user's name, password, and/or level.

	Name	Description
1	Login Name	Administrator can assign a login name for other users. *(Please refer to chapter 5.1 Text Input for text/numeric entry)* *Note: The default login name for administrator is aa.* The user can use it to login the system for the first time.
2	Password	Administrator can assign a password for other users. *(Please refer to chapter 5.1 Text Input for text/numeric entry)* *Note: The default password for administrator is 11.* The user can use it to login the system for the first time.
3	Level	Administrator can set different level of access authority to users. There are three levels of authority: Administrator(highest), supervisor and operator(lowest). The Operator can operate live video display, the Supervisor live video display, image playback and archive, and the Administrator everything. The system allows up to 18 user accounts.
4	MODE	Press this button to select this user as the default one at login, or deselect if this user is the default login user. An asterisk (*) will be shown preceding the number for the default login user. And this login name/password will be the default one each time the login dialog is shown, so the user doesn't bother to enter the text to login the system.

7.7.8 System Setup

In **Setup** display, press ▲▼ to change the highlighted option to **System**, and then press **ENTER** to call up **System Setup** display as shown below.

System setup enables user to properly configure the time, system language and display format of the system.



■ ▲▼◄►

Press these buttons to select the items.

■ **ESC**

Press this button to escape from this screen, and return to Setup Menu display. If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving. **Please note that if the selected language is changed, the user will be asked to reboot the system for the newly selected language to take effect.**

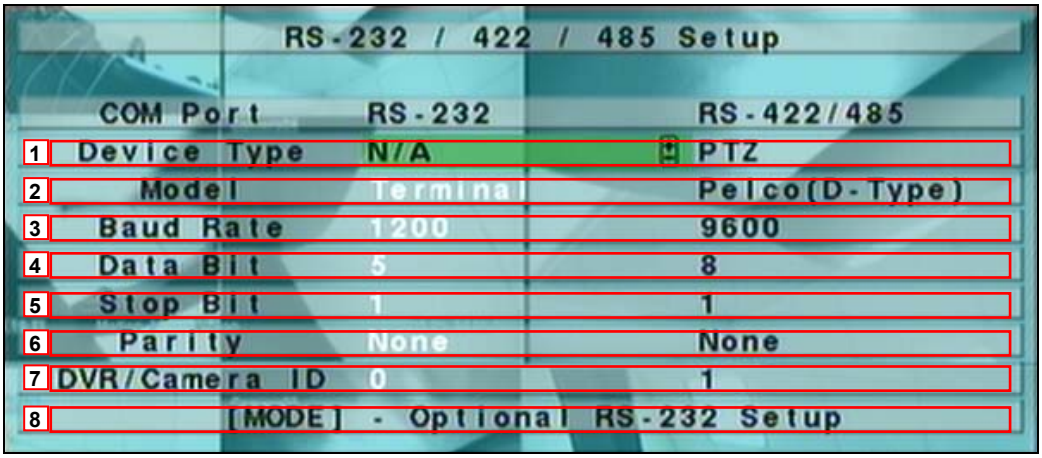
	Name		Description
1	Time Zone		This allows administrator to set the time zone of their country. *(Please refer to Appendix A-Time Zone for time zone reference.)*
	Daylight Saving Time		The system will display the appropriate daylight saving time according to the time zone selected.
2	System Time	Synchronization Time	Click to synchronize the system time with the TSP server time.
		TSP Server	Type in the TSP server address.
		Date	Press [+/−] to adjust the date.
		Time	Press [+/−] to adjust the time.
		Display Format	Press [+/−] to modify the date/time display format.
3	Language		Press [+/−] to apply the appropriate language setting. The system supports up to 14 languages: Spanish, English, Polish, Russian, Turkish, Korean, Italian,

		French, Greek, Japanese, Portuguese, Simplified & Traditional Chinese, Thai (For software V6.13 or above).
4	Protection Key	This function is currently inapplicable.

7.7.9 RS-232 / 422 / 485

In **Setup** display, press ▲▼ to change the highlighted option to **RS-232/422/485**, and then press **ENTER** to call up **RS-232/422/485 Setup** as shown.

User needs to configure this setting for the external hardware such as PTZ speed dome, POS, GPS and DVR keyboard to function properly.



■ ▲▼◄►

Press these buttons to select the items.

■ **ESC**

Press this button to escape from this screen, and return to Setup Menu display. If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving.

	Name	Description
1	Device Type	Keyboard, GPS, POS, PTZ+Keyboard or N/A (Not Available). Press +/− to select the appropriate device. **Please note that PTZ can only be selected for either RS-232 or RS-422/485, but not both.**
2	Model	Press +/− to select the appropriate model for the device. *(Please refer to NOTE 1.)*
3	Baud Rate	Press +/− to set the baud rate.
4	Data Bit	Press +/− to set the data bit.
5	Stop Bit	Press +/− to set the stop bit.

6	Parity	Press ± to set the parity.
7	DVR/Camera ID	Press ± to assign the DVR/Camera an ID. *(Please refer to NOTE 2.)*
8	MODE	Click Mode to enter the optional RS-232 setting.

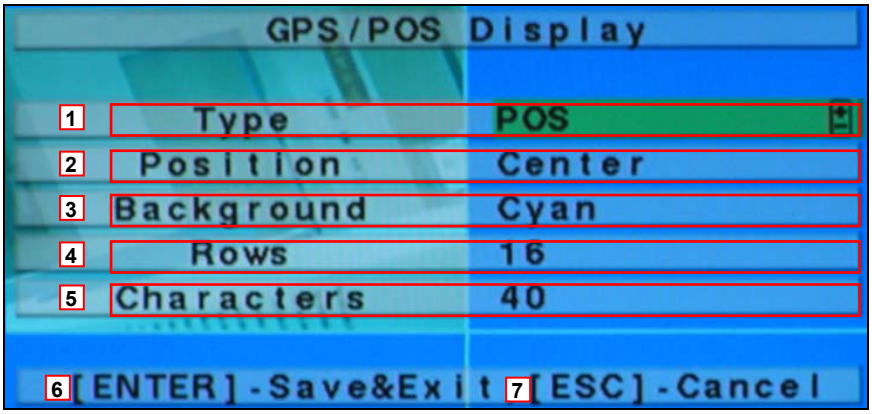
NOTE 1

Model – PTZ model **(for PTZ and PTZ+Keyboard)**, Keyboard model, GPS protocol, or POS printer type of the connected devices. The PTZ models supported include **Pelco D protocol Dome**, **SamSung SCC-641P**, **Kalatel Cyber Dome**, **PIH-series**, **Dynacolor**, **Bosch AutoDome**, **Video Trek**, etc. The POS printer types supported include **Epson General** (EX. **Epson-TM200**, **Epson-TMU300**, **Epson-TMU675**, **Epson-TMT882**, **Epson-RPU420**, and **Epson-MD332S**) and **Epson-TMU295**. Press ± buttons to change the supported model (or protocol). **Please note that if PTZ+Keyboard is selected for Device Type, the Keyboard model is always Control Protocol, and the other settings (Baud Rate, Data Bit, Stop Bit, and Parity) are the same as the PTZ Model selected. Please also note that the installer must be sure that the Keyboard Control Protocol and the PTZ Protocol won't conflict with each other.**

DVR/Camera ID – for **PTZ/Keyboard** => the device ID for this digital video/audio recorder, and it must not conflict with the other devices connected in the same control port.; for **GPS/POS** => the Camera ID to receive the GPS/POS data, **"Multiple" for POS means multiple POS connected and camera 1 for POS ID 1, camera 2 for POS ID 2, etc. Please note that Multiple POS is added for RS-232 port only.** Press ± buttons to change the ID.

NOTE 2 GPS / POS(option) Display Setting

Click **Set/Enter** to call up the GPS/POS setting.



	Name	Description
1	Type	Click ± to select either GPS or POS as the display type.
2	Position	Click ± to adjust the position of the GPS/POS display window.
3	Background	Click ± to select the background color of the display window.
4	Rows	Click ± to set the height of the POS display window. *NOTE: This feature is only available for POS display.*
5	Characters	Click ± to set the width of the POS display window. *NOTE: This feature is only available for POS display*
6	Enter	Click to save and exit the setting.
7	ESC	Click to exit without saving the configuration.

NOTE:

User needs to configure RS-232/422/485 setting for GPS and POS to function properly. (Please cross-reference to section 7.7.9 during setup)

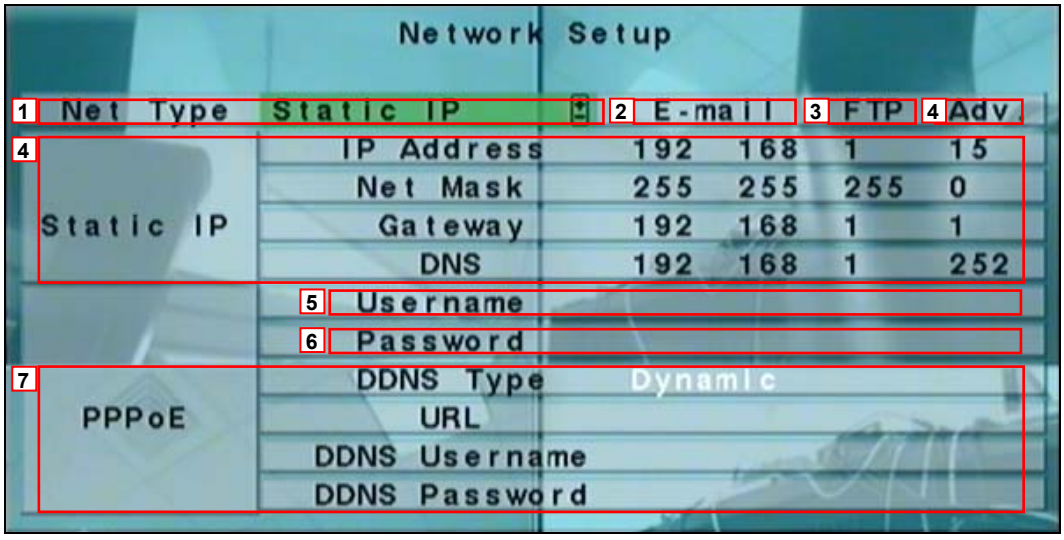
※ **Supported POS Devices：**

Serial Epson-TM8811, TM200, TMU295, TMU300, TMU675, TMT882, RPU420, MD332S Printers. Plain ASCII code.

7.7.10 Network

In **Setup** display, press ▲▼ to change the highlighted option to **Network** , and then press **ENTER** to call up **Network Setup** as shown.

The Network Setup allows the administrator to setup all Ethernet network related parameters. Please check with your network administrator to set these parameters correctly.



■ ▲▼◄►

Press these buttons to select the items.

■ **ESC**

Press this button to escape from this screen, and return to Setup Menu display. If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving.

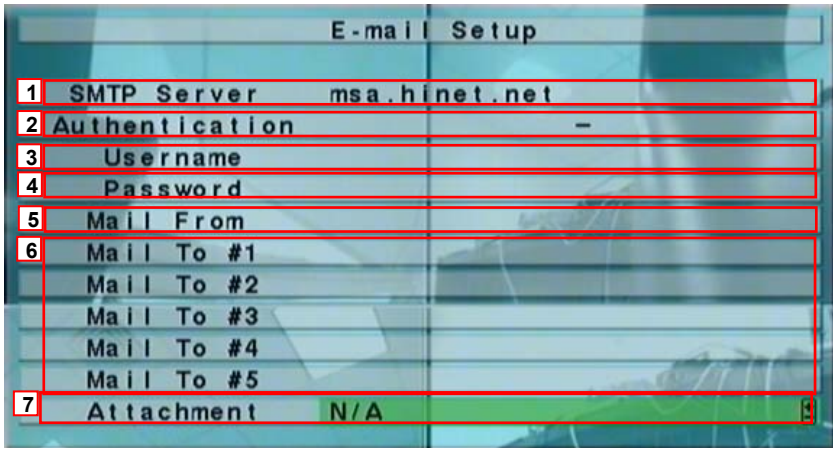
	Name		Description
1	Net Type		Press +/− to select the net type as static IP, PPPoE or DHCP. DHCP can only be used for intranet (LAN) access, while Static IP and PPPoE can be used for both internet & intranet access.
2	Email		Press **Enter** to access the email setting. *(Please refer to 7.7.10.1)*
3	FTP		Press **Enter** to access the FTP server setting. *(Please refer to 7.7.10.2)*
4	Adv. (Advanced Network Setup)		Press **Enter** to access the advanced network setup. *(Please refer to 7.7.10.3)*
4	Static IP	IP Address	Press **Enter** to edit the IP address. To get the static

			IP address, please contact your local ISP (Internet Service Provider). *(Please refer to Chapter 5.1 Text Input for text/numeric entry)*
		Net Mask	Press **Enter** to edit the net mask. *(Please refer to Chapter 5.1 Text Input for text/numeric entry)*
		Gateway	Press **Enter** to edit the gateway IP. *(Please refer to Chapter 5.1 Text Input for text/numeric entry)*
		DNS	Press **Enter** to edit the DNS. *(Please refer to Chapter 5.1 Text Input for text/numeric entry)*
5	Username		Type in the username assigned. *(Please refer to Chapter 5.1 Text Input for text/numeric entry)* *NOTE: Username entry is only applicable to PPPoE*
6	Password		Type in the password assigned. *(Please refer to Chapter 5.1 Text Input for text/numeric entry)* *NOTE: Password entry is only applicable to PPPoE*
7	PPPoE	DDNS Type	Dynamic, Static, or Custom DDNS (Dynamic Domain Name Server) type. Please contact your local DDNS Service Provider to get the DDNS URL, username, and password. Click ± to select the DDNS type.
		URL	Type in the URL address. *(Please refer to chapter 5.1 Text Input for text/numeric entry)* *NOTE: Password entry is only applicable to PPPoE*
		DDNS Username	DDNS username for the system if PPPoE or Static IP is used. *(Please refer to chapter 5.1 Text Input for text/numeric entry)* *NOTE: Password entry is only applicable to PPPoE*
		DDNS Password	DDNS username for the system if PPPoE or Static IP is used. *(Please refer to chapter 5.1 Text Input for text/numeric entry)* *NOTE: Password entry is only applicable to PPPoE*

7.7.10.1 Email Setting

In **Network Setup**, press **ENTER** to call up **E-mail Setup** as shown when the highlighted option is **E-mail**.

The E-mail Setup allows the administrator to set e-mail related parameters. When an event occurs and E-mail is enabled for the corresponding action, an e-mail will be sent based on the parameters set here.



■ ▲▼◄►

Press these buttons to select the items.

■ **ESC**

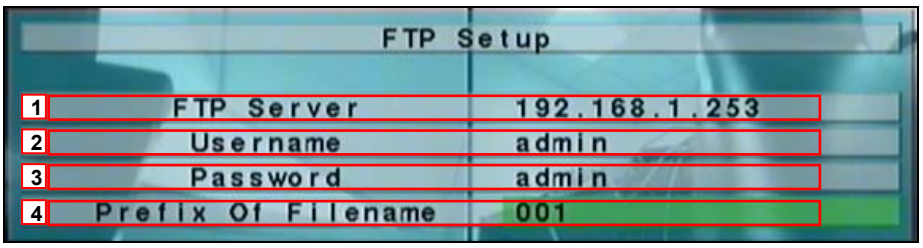
Press this button to escape from this screen, and return to Setup Menu display. If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving.

	Name	Description
1	SMTP Server	Type in the SMTP server address. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
2	Authentication	Click to enable authentication if it is required by SMTP server.
3	Username	Type in the username. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
4	Password	Type in the password. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
5	Mail From	Type in the sender's email address. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
6	Mail to	Type in the recipients' email addresses. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
7	Attachment	This allows user to be alerted with an image attached email.

7.7.10.2 FTP setting

In **Network Setup**, press ▲▼ to change the highlighted option to **FTP**, and then press **ENTER** to call up **FTP Setup** as shown.

The FTP Setup allows the administrator to set FTP related parameters. When an event occurs and FTP is enabled for the action, the recorded video/audio for that event will be sent to the FTP server based on the parameters set here.



■ ▲▼

Press these buttons to select the items.

■ **ESC**

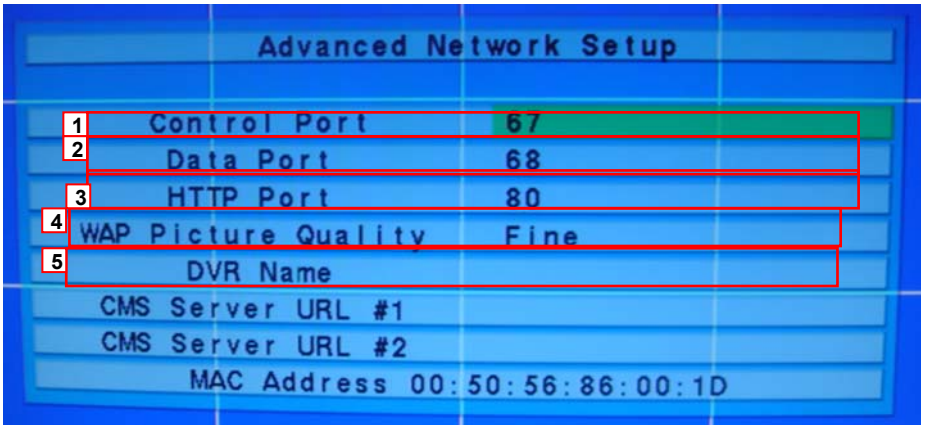
Press this button to escape from this screen, and return to Network Setup display. If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving.

	Name	Description
1	FTP Server	Type in the FTP server address. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
2	Username	Type in the username. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
3	Password	Type in the password. *(Please refer to chapter 5.1 Text Input to text/numeric entry)*
4	Prefix of Filename	Assign a prefix for each file for easier identification. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*

7.7.10.3 Advanced Network Setting

In **Network Setup**, press **ENTER** to call up **Advanced Network Setup** as shown when the highlighted option is **Adv.**.

The Advanced Network Setup allows the administrator to set advanced network parameters. If the user is not familiar with network administration, please DO NOT modify the items in this dialog.



- ▲▼

  Press these buttons to select the items.

- **ESC**

  Press this button to escape from this screen, and return to Network Setup display. If the Save dialog is shown, press **ENTER** to exit and save, **ESC** to exit without saving.

	Name	Description
1	Control Port	Type in the control port number. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
2	Data Port	Type in the data port number. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
3	HTTP Port	Type in the HTTP port number. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
4	WAP Picture Quality	Press +/− to adjust the picture quality.
5	DVR Name	The “DVR Name” used in the “CMS Server” if CMS Server (described below) is (to be) connected with the DVR. Please follow the Text Input method described

		in *chapter 5.1 Text Input* to modify this item.
6	**CMS Server URL #1-2**	The URL (Uniform Resource Locators) for the CMS Server #1 and #2. The DVR will connect with up to two CMS servers automatically once it's running. **Please note that with this feature, the DVR needs not to be a web server, while the CMS server needs to be a web server.** Please follow the Text Input method described in *Chapter 5.1 Text Input* to modify these items.

7.8 System Shutdown (Administrator)

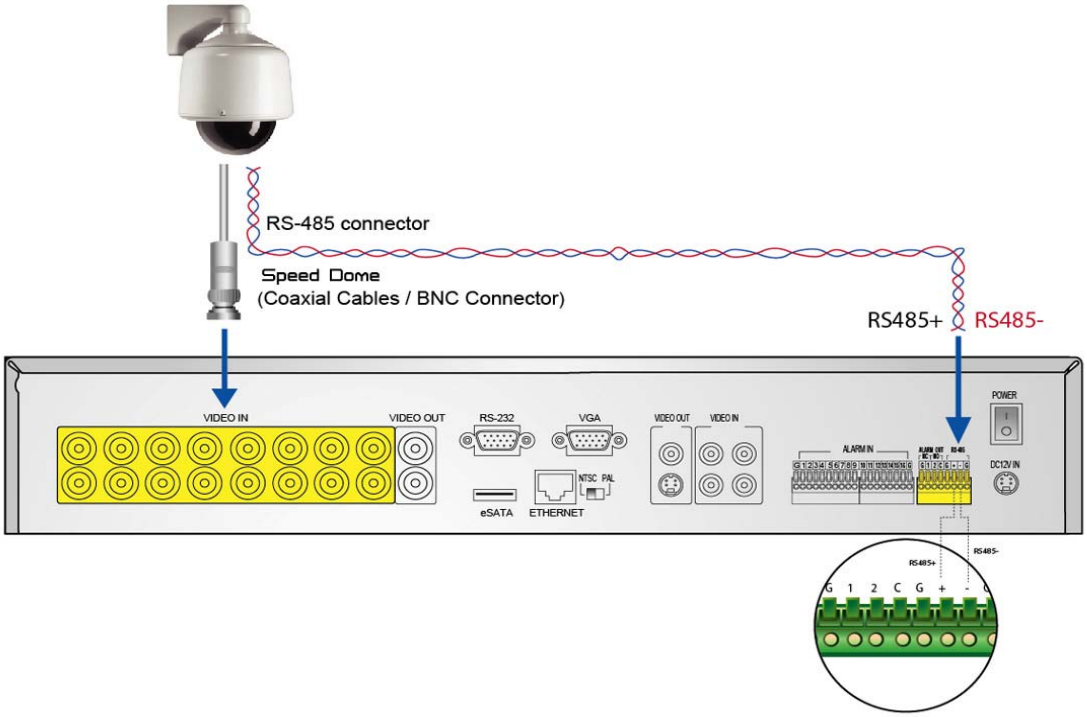
In Menu display, press ▲▼ to change the highlighted option to **Shutdown**, and then press **ENTER (Mouse: Left click)** to shutdown the system. A confirmation dialog will be shown on the screen, press **ENTER** to confirm the shutdown. The system will save all the files and all the states, and then display a power-off message in the rolling screen message area. The user may power off the system safely when the power-off message is shown.

8 PTZ Control

Step 1. Connect DVR and PTZ Camera as below diagram.

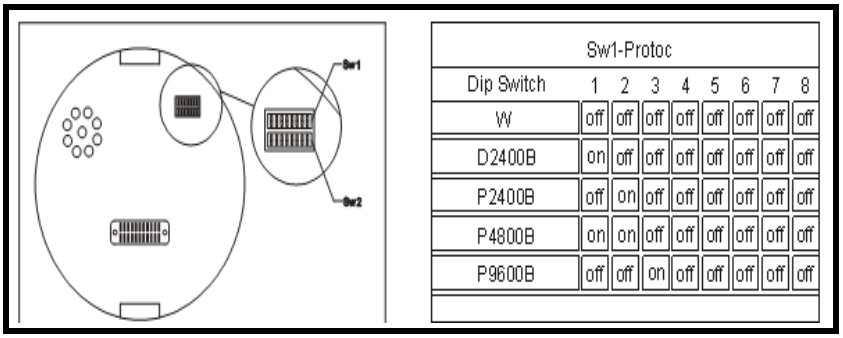
Connect the RS-485 connector to PTZ camera(s) via the appropriate cable.

(Please refer to *Section 4.6 Option Connections_PTZ Cameras*)



Step 2. Adjust the DIP SWITCH on the bottom of the Speed Dome PART

User can select the control protocol / baud rate and address of the speed dome by adjusting DIP SWITCH on the bottom of the Speed Dome PART.



Sw1-Protoc								
Dip Switch	1	2	3	4	5	6	7	8
W	off	off	off	off	off	off	off	off
D2400B	on	off	off	off	off	off	off	off
P2400B	off	on	off	off	off	off	off	off
P4800B	on	on	off	off	off	off	off	off
P9600B	off	off	on	off	off	off	off	off

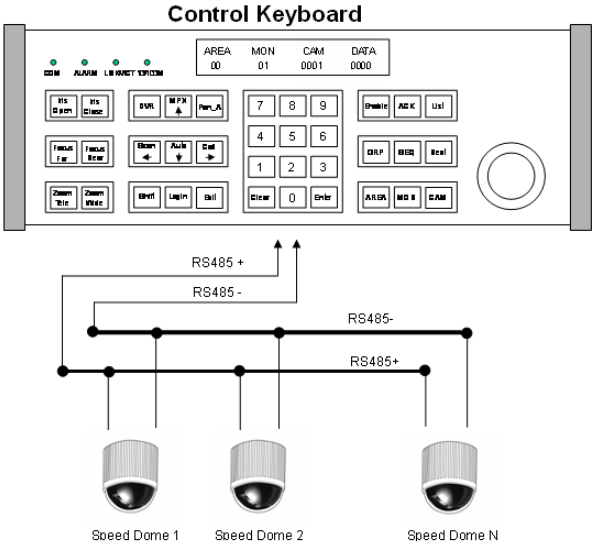
SW1: Protocol

D2400B: means D-Type at 2400 Baud Rate.

(Remark: In the above demonstration, we use PELCO-D Type Speed Dome to communicate with K.G. Standalone DVR.)

RS485 Connection diagram

Serial connection RS-485 control cable of each camera

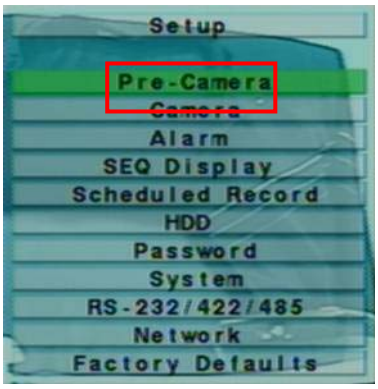


Please note that the last Speed Dome should be enabled with terminal resister for better signal transmission.

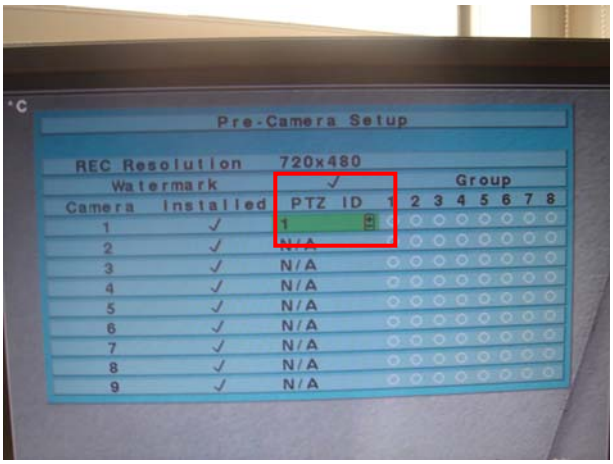
Step 3. DVR Settings of PELCO-D

■ Test PTZ Camera already connected sucessfully.

Access to Setup operation of DVR standalone system then choose Pre-Camera Setup.

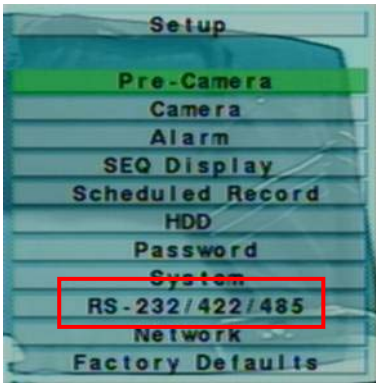


Once PTZ Camera hardware is connectted successful then it will show the number of PTZ Camera that you connected.

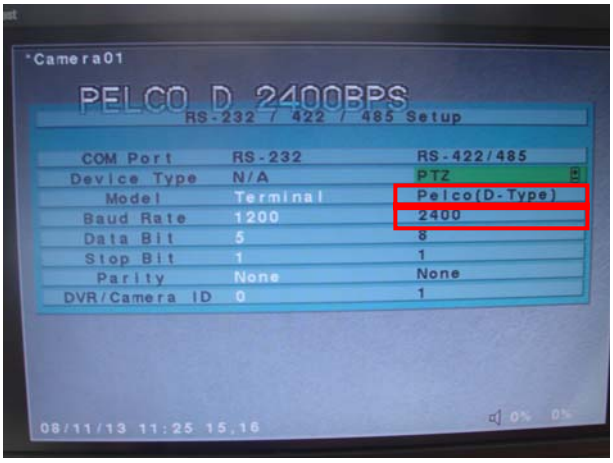


■ Set Baud Rate of PTZ Camera:

Access to Setup MENU of Standalone DVR then choose RS-232/422/485 Setup.



Press +/- (on DVR remote controller) to set the Baud Rate to be 2400. (That's the key point to let standalone DVR & Speed Dome communicate each other.)



Step 4. Press the PTZ button **(Mouse:** **)** on DVR remote controller to confirm PTZ function. Then press +/- **(Mouse:** **)** Zoom in & zoom out function of Speed Dome operation confirmation.

If a camera is also a PTZ camera, there will be an asterisk (*) preceding its title in its video window in split-window display. Please press **PTZ** button **(Mouse:** **)** to enter PTZ control mode if the focus camera is a PTZ camera. The **asterisk** (*) will be **blinked** to indicate that the camera is now in PTZ control mode.

In PTZ control mode, the user's operations can be divided into general operations and miscellaneous function specific operations, and are described as the followings:

General operations:

- **ESC (Mouse:** **)**

  Press this button to exit PTZ control mode. The asterisk (*) will be changed back to normal color.

- **▲▼ (Mouse: Left-click in the up/down area of the video window)**

  Press these buttons to tilt the camera up/down.

- **◄► (Mouse: Left-click in the left/right area of the video window)**

  Press these buttons to pan the camera left/right.

- **ZOOM (** **) +/- (Mouse:** **)**

  Press these buttons to zoom in/out the camera.

- **GOTO (Mouse:** **)**

  Press this button to move the camera to the preset position. The **keypad hint** will be shown. Press numeric buttons **0-9** to enter the number of the preset position to move the camera to. The range of the preset positions is 00-99. **Please note that for V3.20 or above, the range of the preset positions is 00-99.**

- **NEXT**

  Press this button for the next miscellaneous function. The miscellaneous functions include Focus, Iris, Auto PAN, SEQ, Preset, and Pan Speed. And the active one will be shown on the lower right corner of the screen. The miscellaneous function specific operations are described in the following table.

Miscellaneous function specific operations:

Active function	Operations	Descriptions
Focus	**+/-** **ENTER**	**focus far/near** (Mouse:) **auto focus** (Mouse:)
Iris	**+/-**	**Iris increase/decrease** (Mouse:)
Auto Pan (3) (Mouse:)	**+/-** **ENTER** ***** **#**	**Auto pan speed is shown in parenthesis** **increase/decrease speed** **start/stop Auto Pan** **set start position** **set end position**
SEQ (5 sec.) (Mouse:)	**+/-, NUMBER** **ENTER**	**SEQ dwell time is shown in parenthesis. If SEQ mode is on, the camera will goto preset position 0-9 (or 1-10) sequentially.** **change dwell time** **start/stop SEQ mode, an asterisk (*) will be shown if SEQ mode is on**
Preset (1)) (Mouse:)	**+/-, NUMBER** **ENTER**	**Preset location is shown in parenthesis** **change Preset location** **set Preset location**
Pan Speed (3) (Mouse:)	**+/-**	**Manual pan speed is shown in parenthesis** **increase/decrease speed**

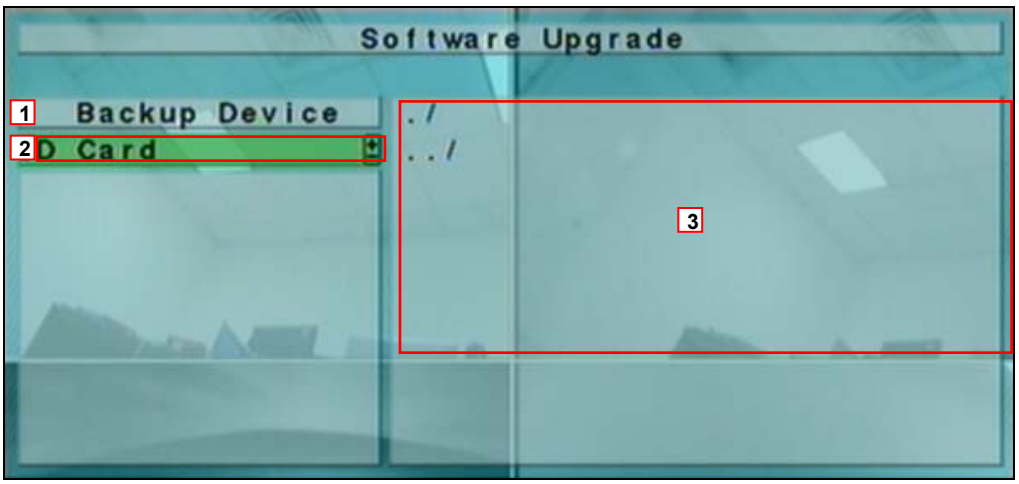
9 Software Upgrade

In **Menu** display, press ▲▼ to change the highlighted option to **Software Upgrade**, and then press **ENTER** to call up **Software Upgrade** display as shown below.

User can upgrade the software from the upgrading files stored inside the external storage media such as DVD, SD card or USB flash drive.

*Before upgrade the software, you should be to confirm system to connect with the backup device (refer to **7.6 Backup Device**). Then press **ENTER** to start the upgrade process when the highlighted file is a correct upgrade file. A confirmation dialog will be shown on the screen, press **ENTER** to confirm to upgrade the system software.*

Please NOTE: Do not change upgrade file name.



- ▲▼◄► **(Mouse: Left click)**
  Press these buttons to select the items.
- **ESC**
  Press this button to escape from this screen, and return to **Menu** display.

	Name	Description
1	Backup Device	Click **Enter** **(Mouse: Left click)** on **Backup Device** to connect the device for upgrading (such as DVD, SD card or USB flash drive). *(Please refer to section 7.6 for detail information on device connection)*
2	SD Card	Press +/− to select the appropriate device that has the upgrading software, and then press **Enter** to start upgrading.
3	File list	Displays all the files stored in the device.

10 Search & Playback

There are five ways to search the recorded video/audio for playback:

(a) Search by time,

(b) Search by event,

(c) Smart search,

(d) Search archived files, and

(e) POS search.

In split-window display, press **SEARCH** button to call up Search Menu display as shown.

■ **▲▼**

Press these buttons to change the highlighted item.

■ **ENTER**

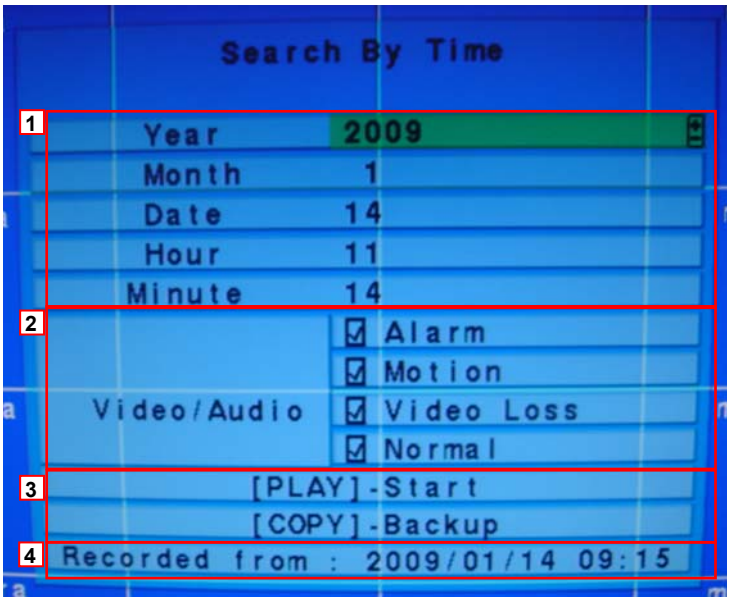
Press this button to enter the corresponding Search display of the highlighted item. The Search displays and their operations are described in the following sections, followed by the playback operations of the searched video/audio.

■ **ESC**

Press this button to escape from Search Menu display, and return to split-window display.

10.1 Search By Time

This section explains how user can search for specific data by defining the date and time as the search criteria.



- ▲▼◄►

  Press these buttons to select the items.

- **ESC**

  Press this button to escape from this screen, and return to **Menu** display.

	Name		Description
1	Start Time (Year, Month, Date, Hour, Minute)		for the recorded video/audio. The playback (or backup) will start from the time entered here when the user press the playback buttons (or Copy button) later. Press to set the year, month, date, hour and minute as the start search criteria.
2	Video / Audio	Alarm	Click to set the alarm triggered record as the search criteria.
		Motion	Click to set the motion triggered record as the search criteria.
		Video Loss	Click to set the video loss triggered record as the search criteria.
		Normal	Click to set the normal record as the search criteria.
	Check the types of the recorded video/audio you want to search for playback. Press **ENTER** or **+/-** to check/uncheck each item.		
3	PLAY ▶/ II		Press this button to start playing the recorded video/audio with the selected search time and video/audio type. **If there's no camera in playback mode, up to 4 cameras in the current split window will be set to playback mode.**

	COPY	Press this button to **backup (copy)** the selected type of recorded video/audio starting from the **Search Time** (described below) in the HDD to the connected backup device **without playback**. The Backup display (described in Section 10.6) will be shown. **Please note that this kind of backup is performed in the background, and the user can still do almost all the operations.**
4	Recorded from	'Recorded from' time based on the selected Video/Audio before searching - alarm partition if any of Alarm, Motion, or Video Loss, is checked, and normal partition if Normal is checked.

10.2 Search By Event / Log Display

There are four different types of event logs, including Alarm, Motion, Video Loss, and System. And up to **3000** most recent event logs can be stored in the system.

- ▲▼◄►

  Press these buttons to select the items.

- **ESC**

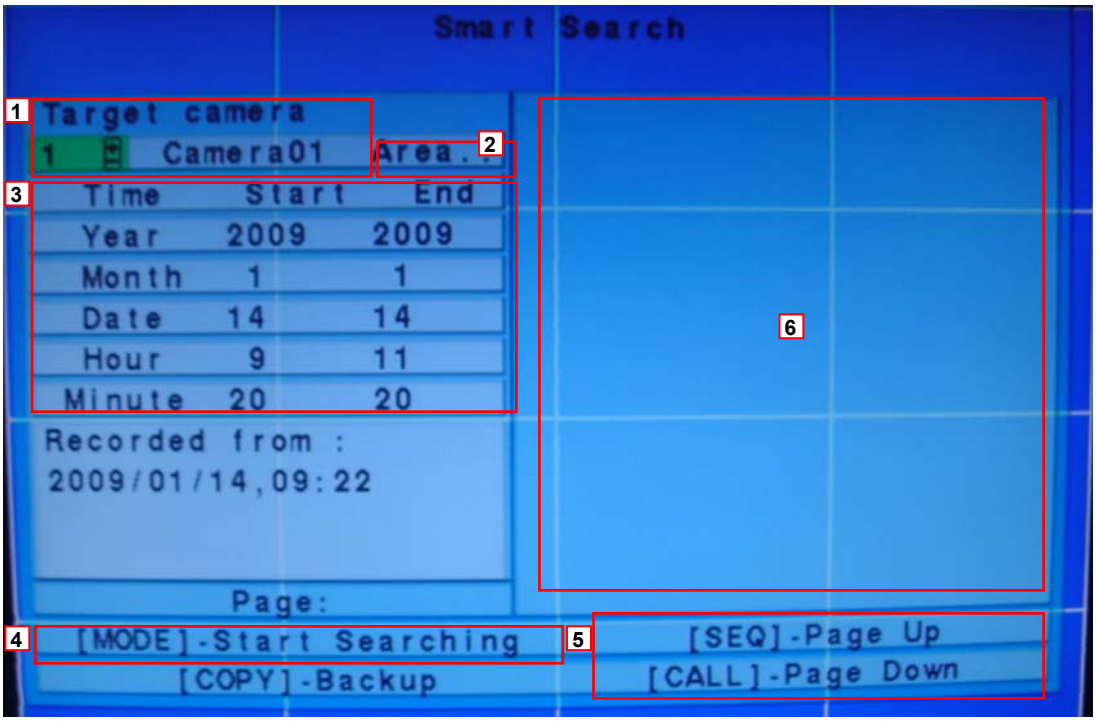
  Press this button to escape from this screen, and return to **Menu** display.

	Name	Description
1	Log history	This section displays the search result with all the event log information.

		The user may (1) press **ENTER** to enter Event Playback display of the selected event log in this list, (2) press **Play Buttons (▶/ II, ►►)** to playback it directly, or (3) press **Copy Button ( )** to **backup (copy)** the selected recorded video/audio to the connected backup device **without playback**. The Backup display (described in Section 10.6) will be shown. **Please note that this kind of backup is performed in the background, and the user can still do almost all the operations.** Please refer to Section 10.7 Playback For Search By Event for the detailed operations for event playback.
2	Event Type	Set the search criteria by selecting the types of event such as alarm trigger, motion trigger, video loss trigger and system event. The Event Type "System" includes all system related events, such as power on/off, and will not trigger recording. Press **ENTER** or +/− to check/uncheck the event type for the log list.
3	Source ID	The source which triggered the event. For Alarm, it's the alarm input number; for Motion and Video Loss, it's the camera number. It's used to filter the events to be shown in the log list. Press **ENTER** or +/− to check/uncheck each item. For software V6.13 or above, you may check/uncheck "All" for faster operation.
4	MODE	Press this button to refresh the log display and clear the selected logs. If there are new event logs after the screen is last updated, the log list shown will be updated accordingly.
5	SEQ => Page Up CALL => Page Down	Click **SEQ/CALL** to Page Up/Down the Log display.

10.3 Smart Search

This section explains how user can use a defined time range to search the recorded data.



- ▲▼◄►

  Press these buttons to select the items.

- **ESC**

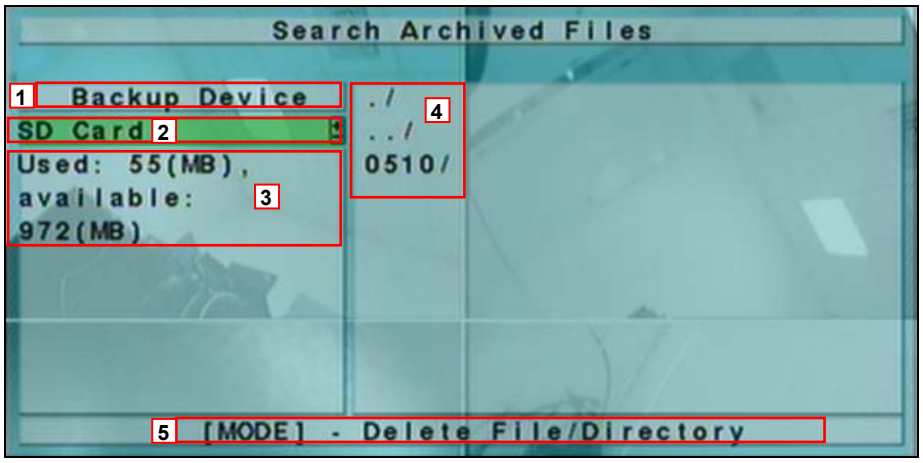
  Press this button to escape from this screen, and return to **Menu** display.

	Name	Description
1	Target Camera	Click ± to select the data source camera as the search criteria.
2	Area	Click **Enter** to access the target area setting and to define the motion trigger area criteria. The system allows the creation of multiple point motion detection zones. Note: *For multiple search zones, all restricted zones must be triggered to enable motion detection recording.*
3	Time/Date Criteria	Click ± to set the date and time period as the search criteria.
4	MODE	Click to start the search process.
5	SEQ => Page Up	Click SEQ/CALL to Page Up/Down the Log display.
	CALL=> Page Down	
6	Matched file history	the matched files (HDD ID & time are shown) according to the selected

		search time, camera, and motion masks. The files are shown from the oldest to the newest, and its page number is shown on the lower-left corner. The user may (1) press ENTER to enter Smart Search Playback display of the selected matched file in this list, (2) press Play Buttons (▶/II, ▶▶, ◀◀) to playback it directly, or (3) press Copy Button ( ) to backup (copy) the selected recorded video/audio to the connected backup device without playback. The Backup display (described in Section 10.6) will be shown. Please note that this kind of backup without playback is performed in the background, and the user can still do almost all the operations. Please also note that the playback (or backup) can walk across all the matched files. Please refer to Section 10.8 Playback For Smart Search for the detailed operations for smart search playback.

10.4 Search Archived Files

This section explains how user can search for archived files stored in the external device.



■ ▲▼◄►

Press these buttons to select the items.

■ **ESC**

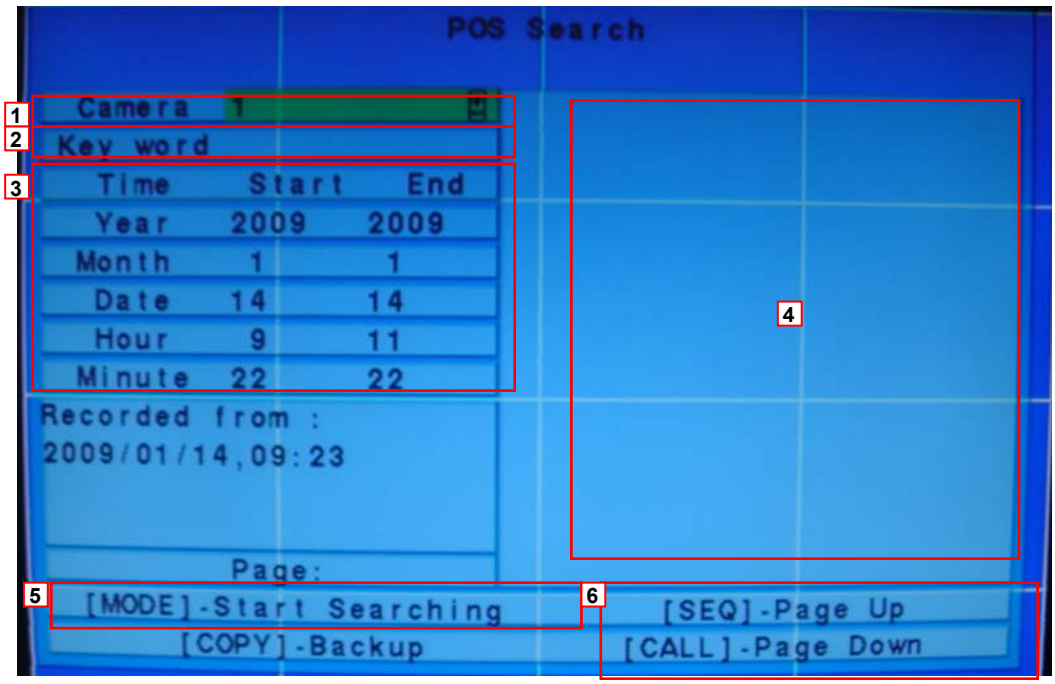
Press this button to escape from this screen, and return to **Menu** display.

	Name	Description
1	Backup Device	Click **Enter** on **Backup Device** to connect the device for upgrading. *(Please refer to section 7.6 for detail information on device connection)*
2	Disk Storage	Press +/− to select the appropriate device that has the upgrading software, and then press **Enter** to start upgrading.
3	Used Space	Shows the used space of the device.

	Available Space	Shows the free space of the device.
4	Archived File list	The archived files in the selected Disk Storage. Please select the file, and then press **ENTER** to enter Archived File Playback display of the selected file in this list, or press **Play** Buttons (▶/II) to playback it directly. Please refer to Chapter *10.9 Playback For Archived Files* for the detailed operations.
5	MODE	Click to delete unwanted file/directory.

10.5 POS Search

This section explains how user can retrieve and view data recorded from the POS device.



- ▲▼◄►

  Press these buttons to select the items.

- **ESC**

  Press this button to escape from this screen, and return to **Menu** display.

	Name	Description
1	Camera	Use ± to select the camera that recorded the data from POS.
2	Key Word	Type in the key word of the POS that need to be searched. *(Please refer to chapter 5.1 Text Input for text/numeric entry)*
3	Time Range	Use ± to set the search time range in terms of start and end time.
4	Result List	The window will display all the searched files that match the criteria set. The matched files (HDD ID & time are shown) according to the selected

		search time, camera, and motion masks. The files are shown from the oldest to the newest, and its page number is shown on the lower-left corner. The user may (1) press ENTER to enter Smart Search Playback display of the selected matched file in this list, (2) press Play Buttons (▶/ II, ▶▶, ◀◀) to playback it directly, or (3) press Copy Button ( ) to backup (copy) the selected recorded video/audio to the connected backup device without playback. The Backup display (described in Section 10.6) will be shown. Please note that this kind of backup without playback is performed in the background, and the user can still do almost all the operations. Please also note that the playback (or backup) can walk across all the matched files. Please refer to Section 10.8 Playback For Smart Search for the detailed operations for smart search playback.
5	MODE	Press this button to start searching the recorded video/audio with the selected search time, camera, and key word. The search result will be shown on the right half of this dialog. To prevent the system from overloading by POS Search, up to 500 matched files or 100 GB of HDD storage for each record partition, alarm or normal, from the start time will be searched.
6	SEQ(Page Up / X2(Page Down)	Press SEQ / X2 to Page Up/Down the Result List.

10.6 Playback/Archive For Search By Time

In split-window display, press **MODE** button to change circularly the live/playback mode for the focus window and the other windows that form a rectangle on the screen. The video windows for the windows in playback mode are grayed, while those in live mode display live video.

Please refer to Section **5.2 Basic Operations** for how to change the camera(s) in the playback windows(s). After the playback windows and cameras are all set as you want, you may use the following buttons to control the playback:

- **Play/Pause Button (▶/ II)**

  Press this button to play the recorded video/audio searched at forward speed 1X, or pause the playback. If the playback is paused, press this button again to resume playing. Note that audio can only be played at forward speed 1X.

- **Stop Button** (■)

  Press this button to stop playing the recorded video/audio. If the user press ▶/ II button later, the playback will start from the beginning.

- **Fast Forward Button (▶▶), Slow Forward Button (SEQ)**

  Press this button for fast/slow forward playback. Each time this button is pressed, the forward playback speed will become faster/slower, from 2X, 4X, 8X, up to 64/16X, and then back to 2X.

- **Fast Backward Button (▶▶), Slow Backward Button (MODE)**

  Press this button for fast/slow backward playback. Each time this button is pressed, the backward playback speed will become faster/slower, from 2X, 4X, 8X, up to 64/16X, and then back to 2X.

- **Single Step Button (▶I)**

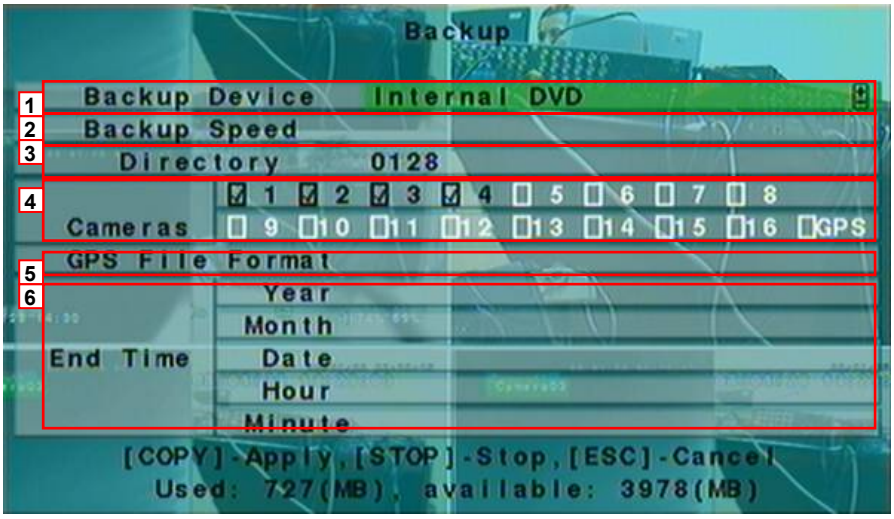
  Press this button to play the recorded images frame by frame.

- **ENTER**

  Press this button to display the GPS/POS data if there's GPS/POS data accompanied with the playback camera. Please select the Type (GPS or POS), Position, Background, Rows, and number of Characters on the screen, and then press **ENTER** to display the GPS/POS data, or **ESC** to cancel. Press **ENTER** again to not display it.

- **Copy Button (** **)**

  Press this button to copy or stop copying the playback video/audio to the storage device connected to the USB port or internal DVD. The **Backup display** will be shown as below.



Following is a brief description for the operations in Backup display:

- ▲▼◄►

  Press these buttons to select the items.

- **Copy Button ( )**

  Press this button to start backup (copy) or apply the revised settings if it's copying, and return to the previous display. There will be a **Copy** icon on the lower-right corner indicating that the selected video/audio is being archived to the storage device. **For DVD disc, the files won't be written to the disc until the storage size reaches 1 GB or the user stop copying. Writing to the disc may take more than 1 minute for every 100 MB (depending on the disc type).**

Note: For internal DVD, please open the front door in order not to block the tray from ejecting, esp. while it's in backup process. Blocking the tray from ejecting may damage the DVD writer.

- **Stop (■)**

  Press this button to stop copying and return to the previous display. The **Copy** icon will be disappeared.

- **ESC**

  Press this button to cancel, and return to the previous display.

	Name	Description
1	**Backup Device**	the backup device connected to the system. Press **ENTER** on the left button to call up **Backup Device dialog** if there's no backup device connected. Press ± buttons on the right selection to select the connected device. **Please follow the steps described in Section 7.6 Backup Device to connect the backup device before copying.**
2	**Backup Speed**	1-9, with 1 the lowest speed, 9 the highest speed. Press ± buttons to select the value.
3	**Directory**	the directory in the backup device to store the archived files. Please follow the Text Input method described in *chapter 5.1 Text Input* to input the directory.
4	**Cameras**	the video/audio of the cameras to be archived. Press **ENTER** or ± to select/deselect each of the selectable cameras. **If the camera with GPS data is selected, the GPS data will be saved with the camera video in the same file. The user may save GPS data only (without saving camera video) by selecting GPS.**
5	**GPS File Format**	for the backup of GPS data only. The supported formats are **TXT** and **KML**. Press ± buttons to select the value.
6	**End Time**	(**Year**, **Month**, **Date**, **Hour**, **Minute**) for the recorded video/audio for the **backup without playback** of **Search By Time**. The files will be backup from the start time to the end time when the user press the **COPY** button to start copying. Press ± buttons to modify each item.

Except the playback buttons, the user can still do all the other operations in split-window display as if there is no playback. Please refer to **5.2 Basic Operations** for the operations of the other buttons.

Note : The format of the GPS filename is YYYYMMDD-hhmmss.txt (or .kml), where YYYY stands for year, MM month, DD date, hh hour, mm minute, and ss second. GPS file can be displayed in the archived file list, but cannot be played. Please use GPS applications such as Google Earth, PaPaGO, etc. to read/convert its contents.

Note : For each camera and each backup, a batch file will be generated as well as the backup files. A directory "/VideoPlayer" will also be generated if it's not existing in the backup storage device. The user can use the batch file to self-playback the corresponding backup files in a PC. If the PC has not been installed with the required player components, those components will be installed by running the batch file except Windows Vista. For Windows Vista, please run /VideoPlayer/VideoPlayerInstall.exe manually to install the required player components. To copy self-playback files, please copy the batch file and the backup files to the destination directory, and copy the whole directory "/VideoPlayer" to the root directory of the destination device.

10.7 Playback/Archive For Search By Event

In Log display, press **ENTER** to enter Event Playback display of the selected event log, or press **Play Buttons (** ▶/ II, ▶▶ **)** to playback it directly. This display is the same as full screen display of the main display, and the playback buttons are effective.

The operations are as below:

- **Playback Buttons (** ▶/ II, ■, ▶▶, ◀◀, ▶I, , **ENTER, MODE, SEQ)**
  These buttons are all the same as in Section 10.6 Playback/Archive For Search By Time.

- **The Other Buttons**
  All the other buttons are the same as in **5.2 Basic Operations**.

10.8 Playback/Archive For Smart Search

In Smart Search display, press **ENTER** to enter Smart Search Playback display of the selected matched file, or press **Play Buttons (** ▶/ II, ▶▶, ◀◀ **)** to playback it directly. **Please note that the playback can walk across all the (up to 500 per record partition) matched files.** So, it's not necessary for the user to repeat the process of Smart Search & Playback just for a single file. This display is the same as full screen display of the main display, and the playback buttons are effective.

The operations are as below:

- **Playback Buttons (** ▶/ II, ■, ▶▶, ◀◀, ▶I, , **ENTER, MODE, SEQ)**
  These buttons are all the same as in Section 10.6 Playback/Archive For Search By Time.

- **CALL**

  At playing the video, press this button to call up (show) or hide the Motion Areas set by the user.

- **The Other Buttons**

  All the other buttons are the same as in **5.2 Basic Operations**.

10.9 Playback For Archived Files

In Search Archived Files display, press **ENTER** to enter Archived File Playback display of the selected file, or press **Play Buttons (** ▶/ II, ▶▶**)** to playback it directly. This display is the same as full screen display of the main display, and the playback buttons are effective.

The operations are as below:

- **Playback Buttons (**▶/ II, ■, ▶▶, ◀◀, ▶I, **ENTER, MODE, SEQ)**

  These buttons are all the same as in Section 10.6 Playback/Archive For Search By Time. Please note that **COPY** button ( ) is not effective in this display.

- **The Other Buttons**

  All the other buttons are the same as in **5.2 Basic Operations**.

10.10 Playback/Archive For POS Search

In POS Search display, press **ENTER** to enter POS Search Playback display of the selected matched file, or press **Play Button (**▶/ II**)** to playback it directly. This display is the same as full screen display of the main display, and the playback buttons are effective.

The operations are as below:

- **Playback Buttons (**▶/ II, ■, ▶▶, ◀◀, ▶I, , **ENTER, MODE, SEQ)**

  These buttons are all the same as in Section 10.6 Playback/Archive For Search By Time.

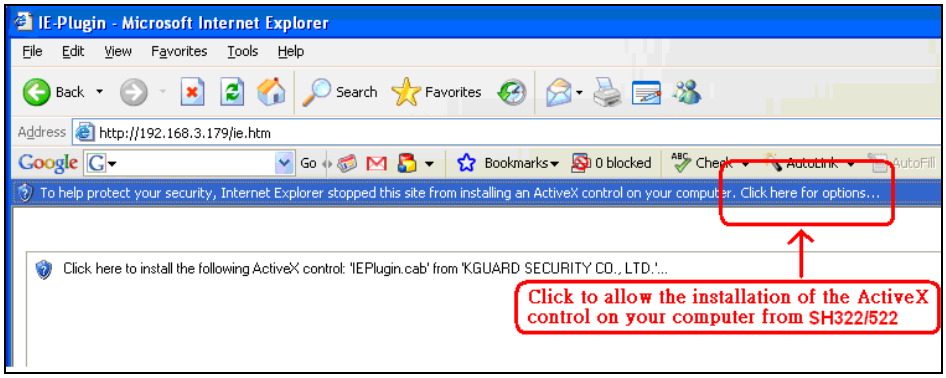
- **The Other Buttons**

  All the other buttons are the same as in **5.2 Basic Operations**.

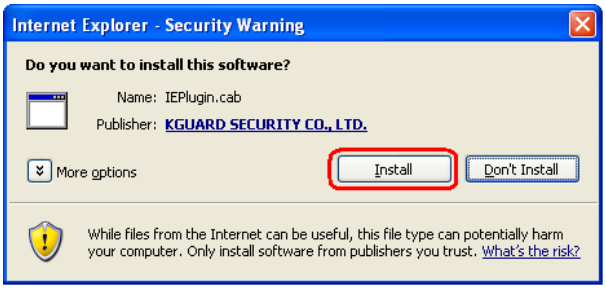
11 Remote Access

11.1 Remote Access via Internet Explorer (IE)

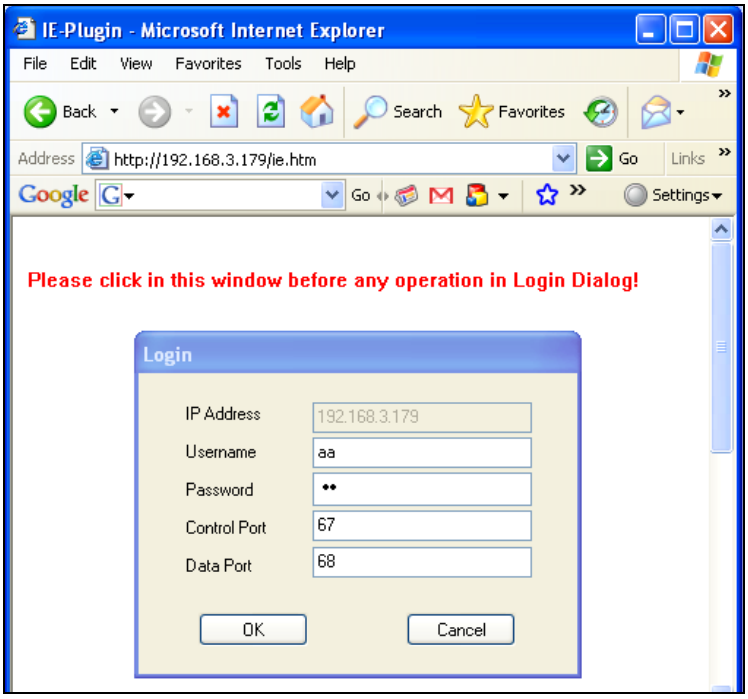
Step1. Type in the IP address of the 9CH / 16CH standalone DVR in the IE address bar to access the system remotely.


IE-Plugin - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://192.168.3.179/ie.htm
Google Go Bookmarks 0 blocked Check AutoLink AutoFill
To help protect your security, Internet Explorer stopped this site from installing an ActiveX control on your computer. Click here for options...
Click here to install the following ActiveX control: 'IEPlugin.cab' from 'KGUARD SECURITY CO., LTD.'...
Click to allow the installation of the ActiveX control on your computer from SH322/522

Step2. When the IE prompts to install ActiveX control, click to allow installation.


Internet Explorer - Security Warning
Do you want to install this software?
Name: IEPlugin.cab
Publisher: KGUARD SECURITY CO., LTD.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

Step3. When an installation dialog box pops up, click to install IE Plugin.cab.



*NOTE: **Step 2 & Step 3 only apply to first time user.***

Step4. Type in the login name, password, control port and data port information to access the system.

- The default login name: aa

- The default password: 11

11.1.1 Main Screen

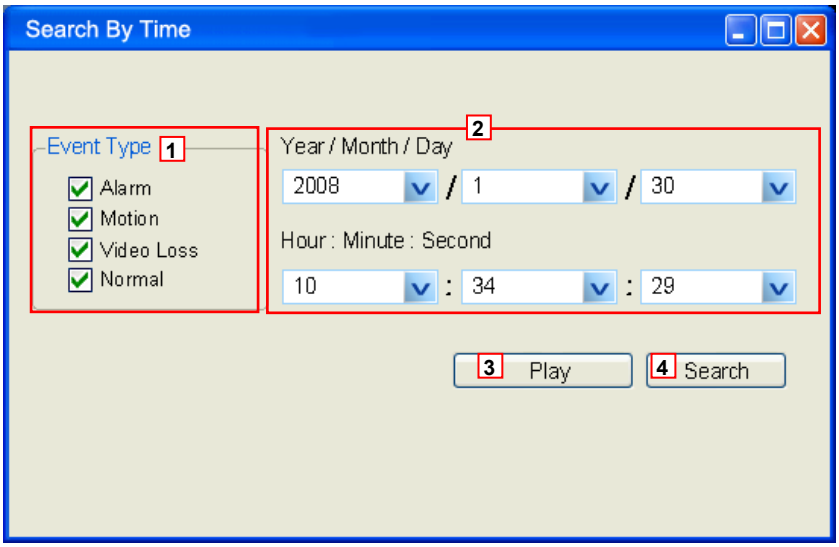
	Name		Description
1	Camera ID		Displays the ID of the camera.
2	Video Screen		This is to display both live and playback video.
3	Date/Time		This is to show the actual recording time and date of the video.
4	PTZ	PTZ Control	These buttons are for the control of the PTZ speed dome.
		Focus	This is to enable user to adjust the image video.
		Iris	This is to enable user to adjust the amount of light entering the camera lens.
5	Camera		These buttons correspond to the respective cameras connected to DVR.
6	Alarm In		These buttons correspond to the respective alarms connected to DVR.
7	Alarm Out		These buttons correspond to the cameras that are set tot respond to the alarm trigger.
8			Search by Time: This feature enables user to search for video data according to the specified date and time.
			Record file playback: Click to play the selected record file.
			Search by Event: This feature enables user to search for video data according to the event criteria.
			PTZ: Click to open the PTZ control panel.

		POS Search: This feature enables user to search for POS recorded data according to the specified date and time.
		Software Upgrade: Click to upgrade the system.
		GPS Configuration: GPS Configuration enables user to customize the GPS setting.
		Server Configuration: This is for user to add new server, edit existing servers and to delete servers as well as configure the property of each server.
		POS Configuration: POS configuration enables user to customize the POS setting.
9	DVR	Press the option to selected DVR screen.
	Playback Control	These buttons are for the playback, forward, rewind, stop and copy video.
A		Sequence Mode: Press to switch to sequence mode.
		Audio: Click to listen to the audio being recorded by the selected DVR server.
		Microphone: When the feature is enabled, the voice of the user can be transmitted to the selected DVR server for hearing via IE. *NOTE: This feature is only enabled when connecting to microphone.*
		Search Mode: Press to switch to search and playback mode.
		Manual Backup: Press to setup the backup configuration.
		Freeze Mode: Press to freeze the image.
		Click on this icon for snapshot of the focus camera.
		Click on this icon for audio broadcasting to all connected DVRs.
		POS: Press to bring up the POS window.
		GPS: Press to bring up the GPS window.
B	Screen Layout	User can choose the screen layout format.

11.1.2 Search & Playback

11.1.2.1 Search By Time

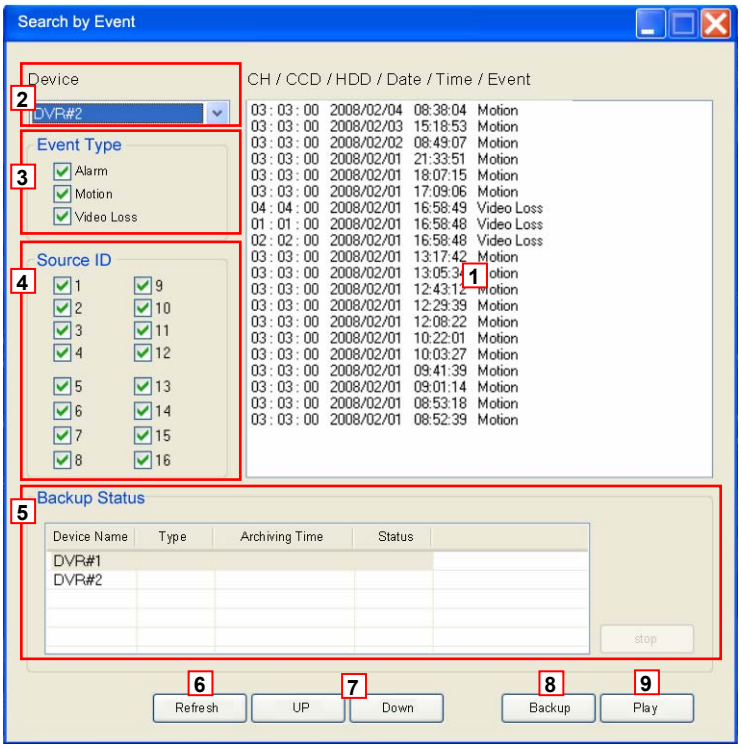
This feature enables user to search for a video data playback according to specific date, time and event type search criteria.



	Name	Description
1	Event Type	Check the type of video as the search criteria.
2	Date/Time	Select the date and time and set it as the search criteria.
3	Play	Click to play the searched video.
4	Search	Click to start the search process.

11.1.2.2 Search By Event

This feature enables user to search for a video data playback according to the device, event type and camera source.



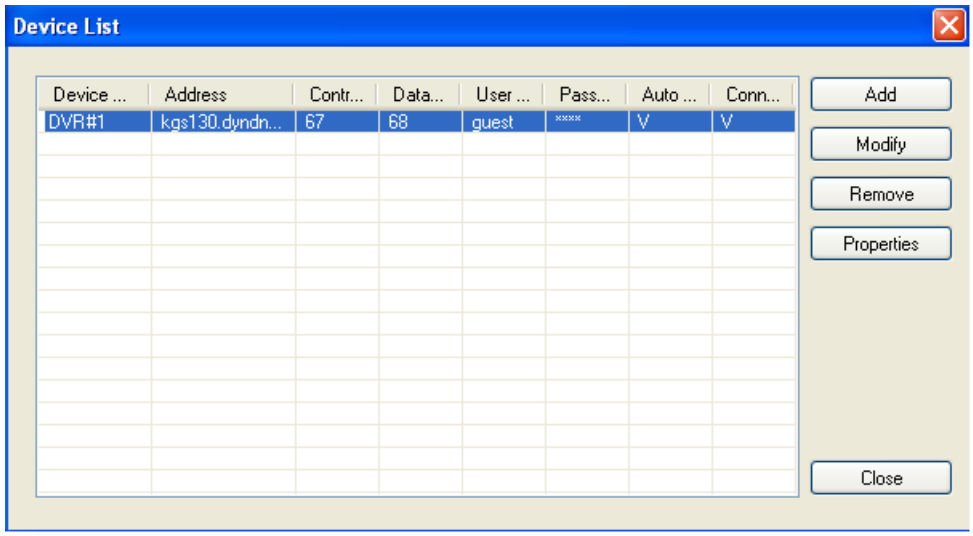
	Name	Description
1	Event List Window	The window lists out all the events searched according to the criteria set.
2	Device	Select the device for the data to be retrieved.
3	Event Type	Set the search criteria according to the event type set.
4	Source ID	Set the search criteria according to the cameras set.
5	Backup Status	The window displays the status of each server.
6	Refresh	Click to refresh the search process.
7	Up/down	Click to scroll along the event list.
8	Backup	Press to backup the highlighted video data manually.
9	Play	Click to play the highlighted video.

11.1.3 PTZ Control

	Name		Description
1	PTZ control		Click to control the pan / tilt / zoom of the PTZ speed dome.
2	Focus		Click ± to adjust the focus of the camera.
3	Iris		Click ± to adjust the camera iris.
4	Auto Pan	Run	Click to start the auto pan feature.
		Stop	Click to stop the auto pan feature.
		Set Start/End	Click to set the start and end time for automated pan feature.
5	SEQ	Run	Click to turn on sequence surveillance.
		Stop	Click to turn off sequence surveillance.
6	Preset	SET	Click to set the camera at a specific location.
		Goto	Click to access the image taken by the camera at its preset point.

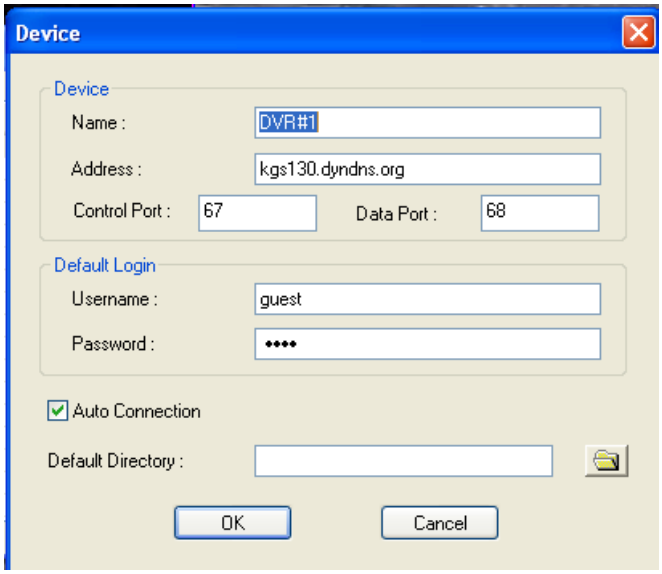
11.1.4 Server Configuration

This is for user to add new DVR, edit existing DVR and to delete DVR as well as configure the property of each DVR. Setup configuration of the specific DVR can be modified and uploaded to the respective DVR remotely.



11.1.4.1 Add New Server

Press Add to add a new server.

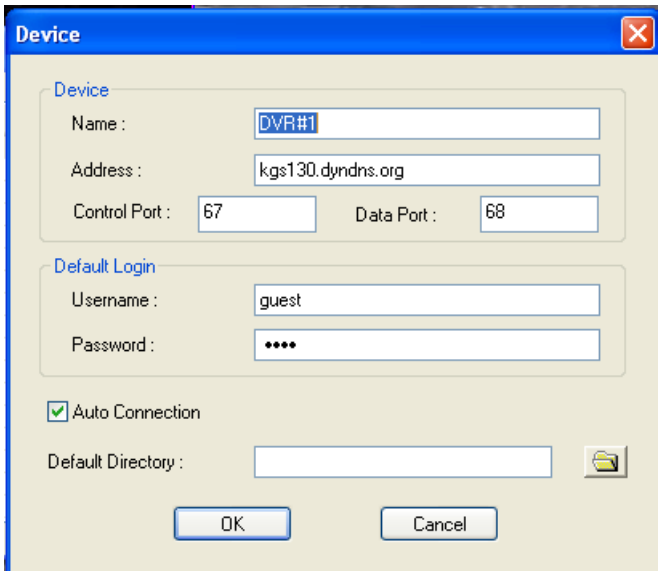


STEP1: Enter device name, address, control port, data port, username and password and then click OK.

Optional: User may also select Auto Connection to enable auto connection to the DVR.

11.1.4.2 Modify Server

Press Modify to modify the server information.

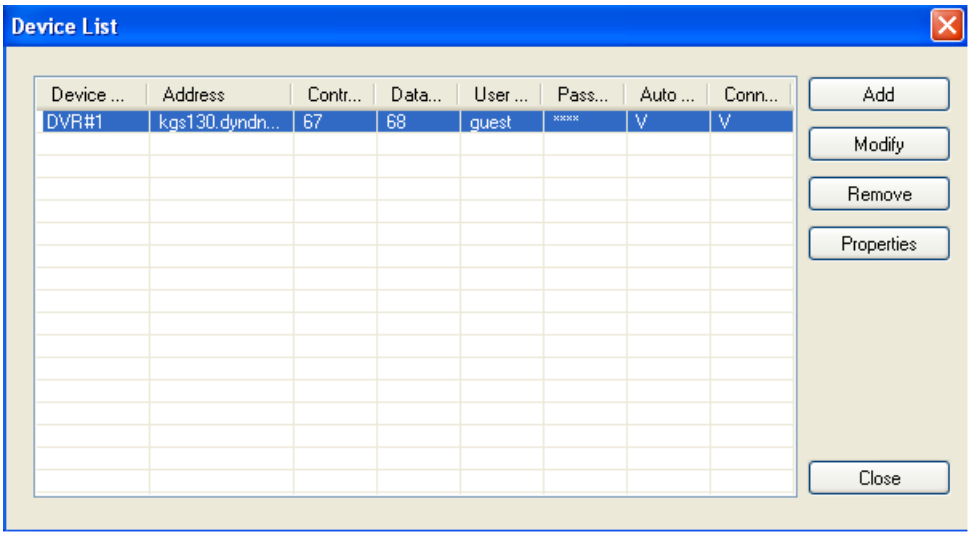


STEP1: Delete all the information that is to be modified.

STEP2: Then enter new information into their respective columns.

STEP3: Then click OK to save changes.

11.1.4.3 Delete Server



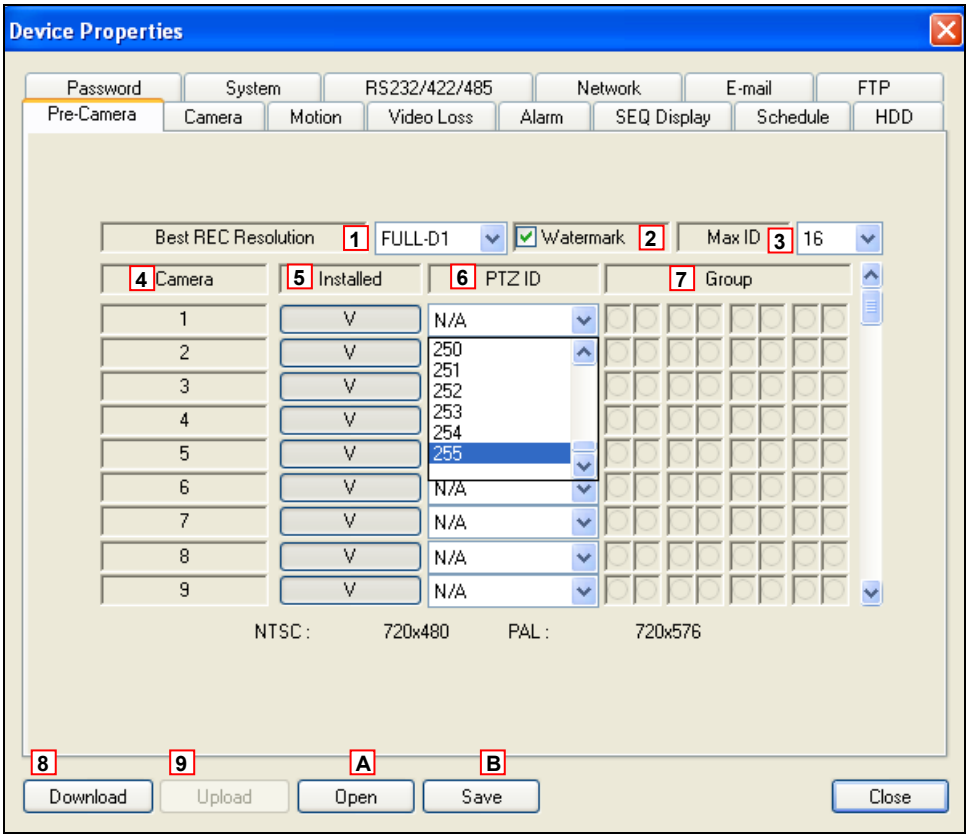
STEP1: Select the Server to be discarded.

STEP2: Click Remove to delete the server.

11.1.4.4 Configure Server Property

Press Properties to enter the server configuration page.

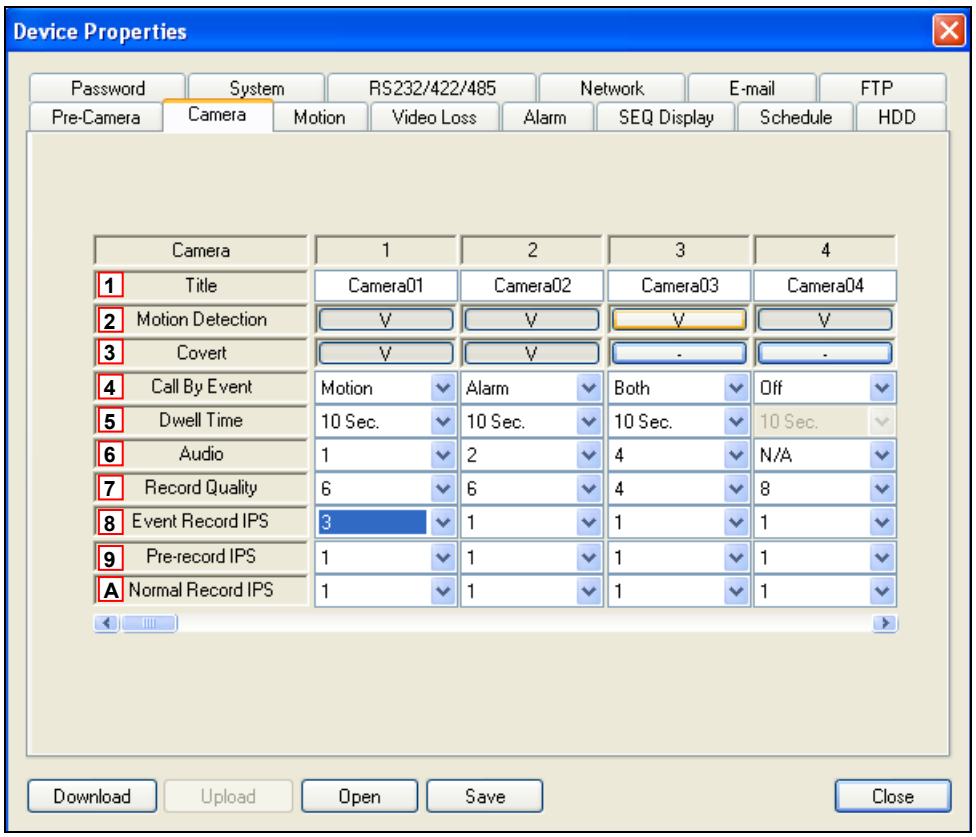
11.1.4.4.1Pre-camera



	Name	Description
1	Best REC Resolution	Select to adjust the recording resolution.
2	Watermark	Click to watermark the video.
3	Max ID	Click to set the maximum number of camera available on a specific DVR.
4	Camera	This shows the camera of a specific DVR.
5	Installed	Click to activate the camera.
6	PTZ ID	Assign an ID to the PTZ camera for identification purpose.
7	Group	Allow the assignment of each camera into different groups.
8	Download	This function enables user to download the original configuration from the host system should any accidental modification occur. It also allows user to reconfirm whether the modified configuration has been properly updated to the host system.
9	Upload	Click to upload the modified configuration to the host system through

		internet.
A	Open	Click to apply the previously saved setting to the current configuration.
B	Save	Press to save the setting to a specified location.

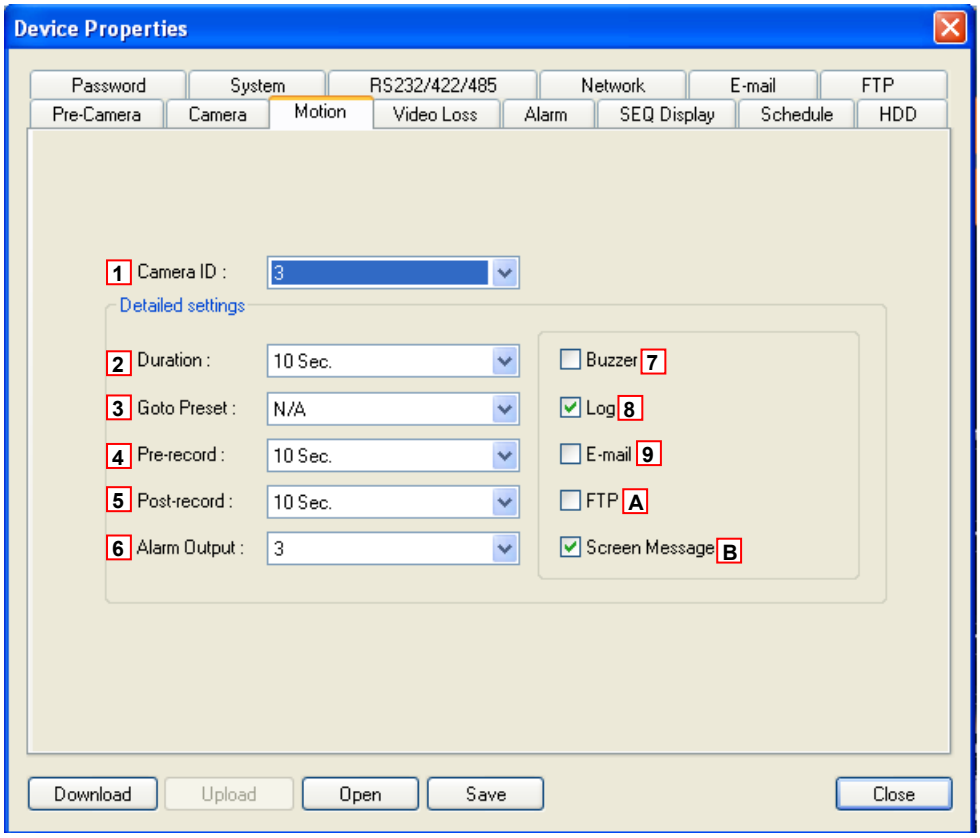
11.1.4.4.2 Camera



	Name	Description
1	Title	Assign a title to each camera for easy identification.
2	Motion Detection	Click to activate the motion detection feature for the specific camera.
3	Covert	Click to activate the covert feature for the specific camera. *NOTE: When covert is activated, only administrator/supervisor level users can view the live video of the respected camera.*
4	Call By Event	Click to select the purpose of the camera whether it is for motion detection, alarm or both.
5	Dwell Time	Select the interval period of each camera display.
6	Audio	Click to select the audio input.
7	Record Quality	Allow the adjustment of recording quality.
8	Event Record IPS	Allow the adjustment of event recording rate.
9	Pre-record IPS	Allow the adjustment of pre-recording rate.

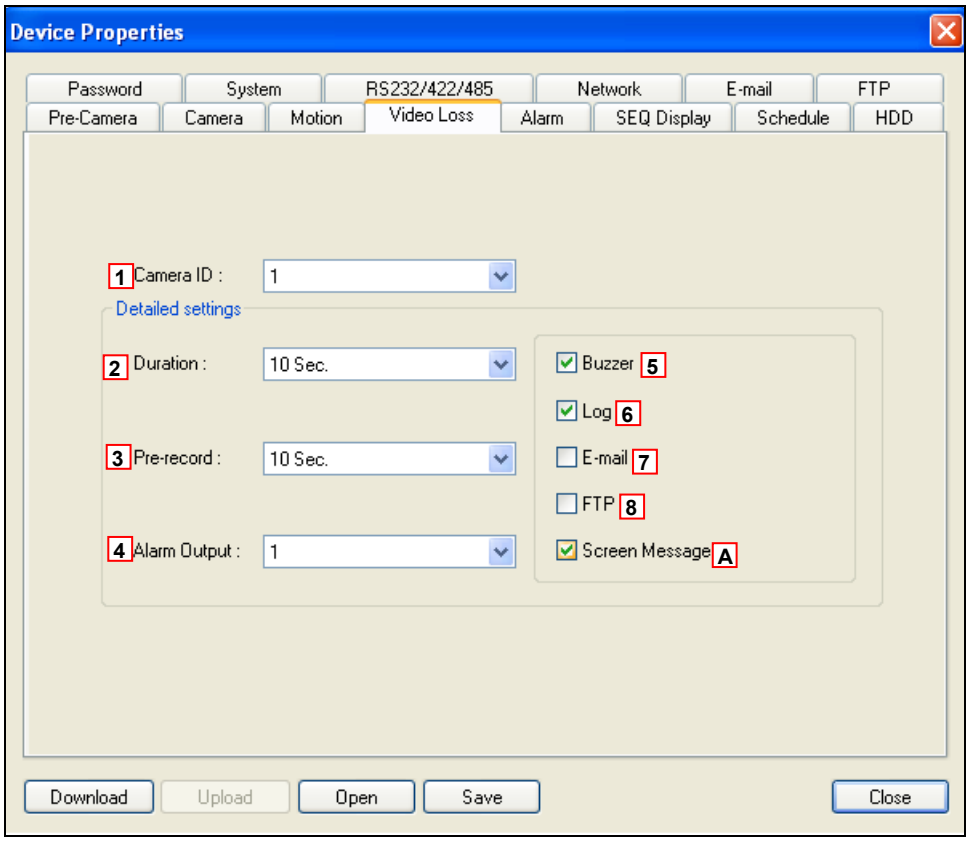
A	Normal Record IPS	Allow the adjustment of normal recording rate.

11.1.4.4.3 Motion



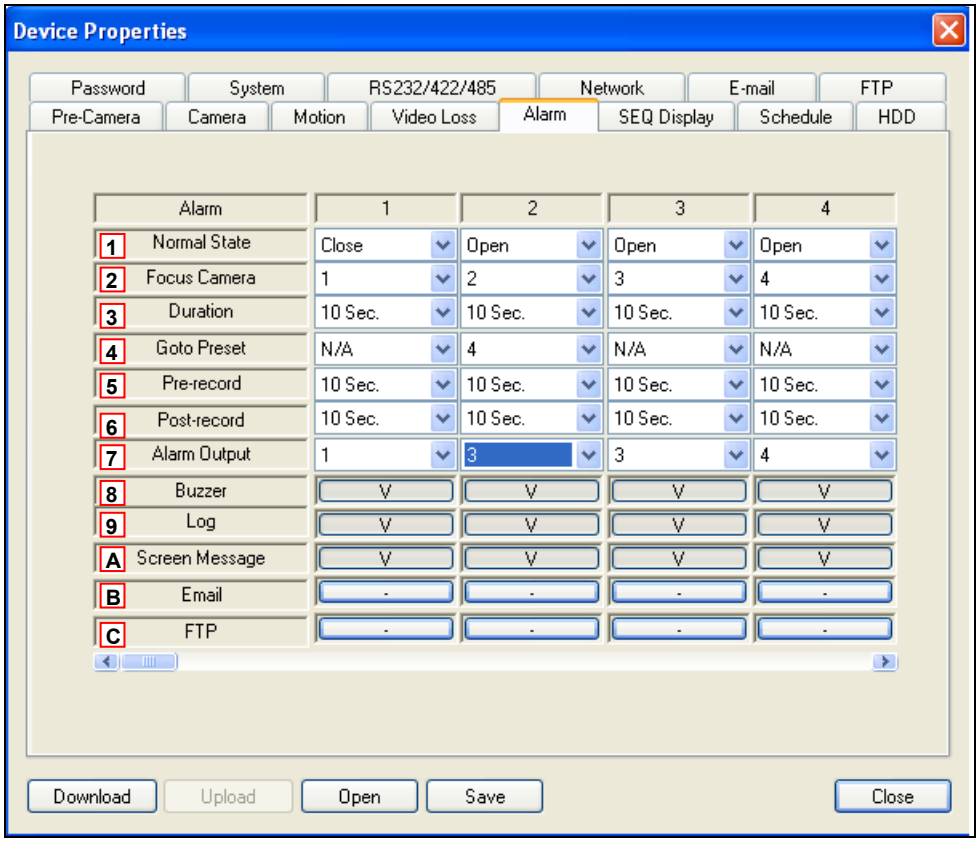
	Name	Description
1	Camera ID	Select the camera as a motion trigger.
2	Duration	Set the notification duration during motion detection.
3	Goto Preset	Set which camera preset location to be displayed upon a motion
4	Pre-record	Set the pre-recording time.
5	Post-record	Set the post-recording time.
6	Alarm Output	Select the alarm output notification during motion detection.
7	Buzzer	Click this to enable the activation of buzzer warning during motion detection.
8	Log	Click this to enable the creation of a log during motion detection.
9	Email	Click this to enable a text notification display on the screen during motion detection.
A	FTP	Click this to have an email notification during motion detection.
B	Screen Message	Click this to have the notification sent to the FTP server during motion detection.

11.1.4.4.4 Video Loss



	Name	Description
1	Camera ID	Select the camera as a video loss trigger.
2	Duration	Set the notification duration during video loss.
2	Pre-record	Set the pre-recording time.
4	Alarm Output	Select the alarm output notification during video loss.
5	Buzzer	Click this to enable the activation of buzzer warning during video loss.
6	Log	Click this to enable the creation of a log during video loss.
7	Email	Click this to enable a text notification display on the screen during video loss.
8	FTP	Click this to have an email notification during video loss.
A	Screen Message	Click this to have the notification sent to the FTP server during video loss.

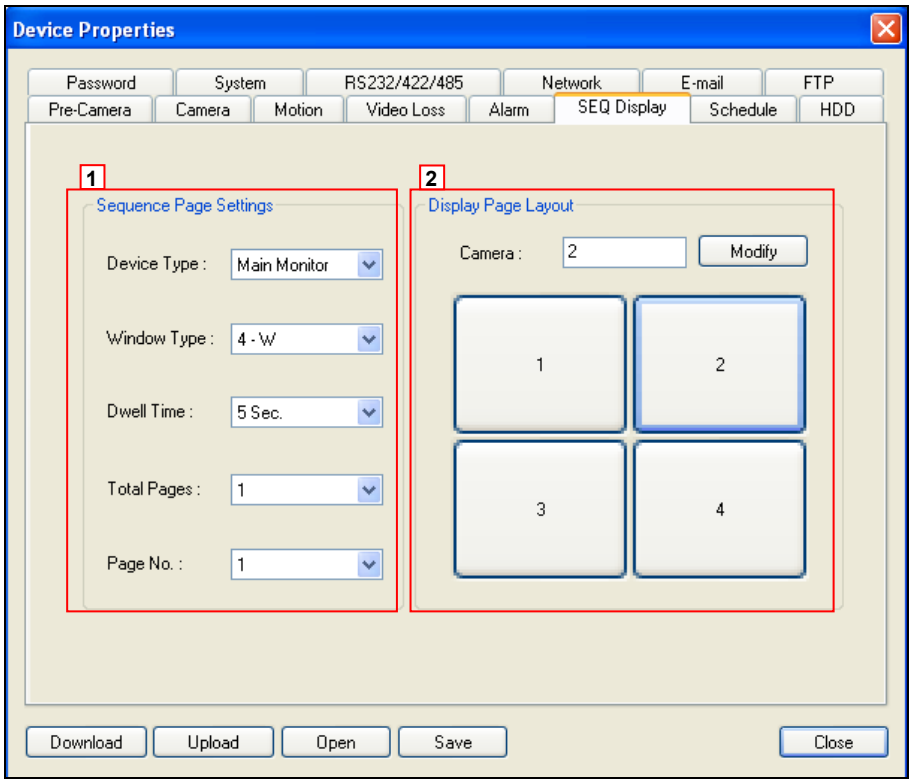
11.1.4.4.5 Alarm



	Name	Description
1	Normal State	Choose to turn on/off the alarm condition during normal state.
2	Focus Camera	Choose the focus camera upon an alarm trigger.
3	Duration	Set the alarm duration once it is triggered.
4	Goto Preset	Set which camera preset location to be displayed upon an alarm trigger.
5	Pre-record	Set the pre-recording time.
6	Post-record	Set the post-recording time.
7	Alarm Output	Assign an alarm output when the alarm is triggered.
8	Buzzer	Click this to enable the activation of buzzer warning during an alarm trigger.
9	Log	Click this to enable the creation of a log when the alarm is triggered.
A	Screen Message	Click this to enable a text notification display on the screen during an alarm trigger.
B	Email	Click this to have an email notification during an alarm trigger.
C	FTP	Click this to have the notification sent to the FTP server upon an alarm trigger.

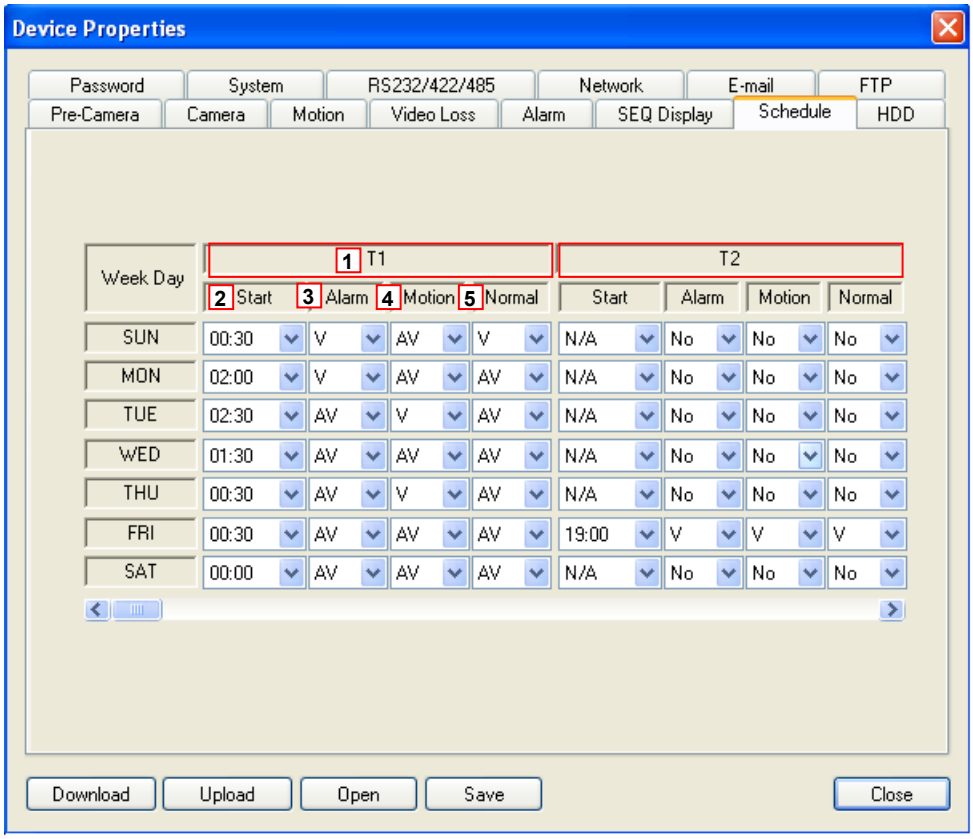
11.1.4.4.6 SEQ Display

This configuration allows user to setup the order of the surveillance sequence of each DVR.



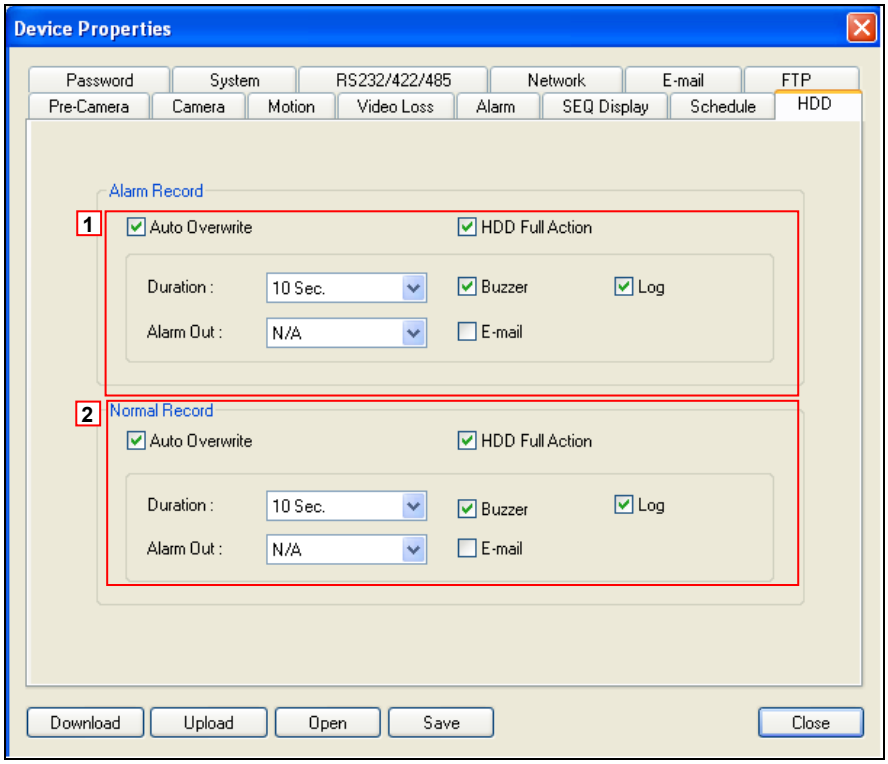
	Name		Description
1	Sequence Page Setting	Device Type	Select the appropriate monitor for the surveillance sequence.
		Window Type	Select the number of display channel for each surveillance page.
		Dwell Time	Select the interval period of each surveillance page.
		Total Page	Select the total number of page that will be displayed in the surveillance order.
		Page No.	User can set the camera to be displayed on the selected surveillance page.
2	Display Page Layout		Set the camera to be displayed on the selected surveillance page then click modify.

11.1.4.4.7 Schedule



	Name	Description
1	T(x)	This represents the number of schedule segment. **User can set up to a maximum of 16 different schedule segments. The beginning of the new schedule segment represents the end of the previous schedule segment. Thus, a warning dialog box will appear when two time schedule segments overlap.**
2	Start	Allows user to set the start recording time.
3	Alarm	User may choose to only record video or audio or both video and audio during alarm recording period.
4	Motion	User may choose to only record video or audio or both video and audio during motion detection recording period.
5	Normal	User may choose to only record video or audio or both video and audio during normal recording period.

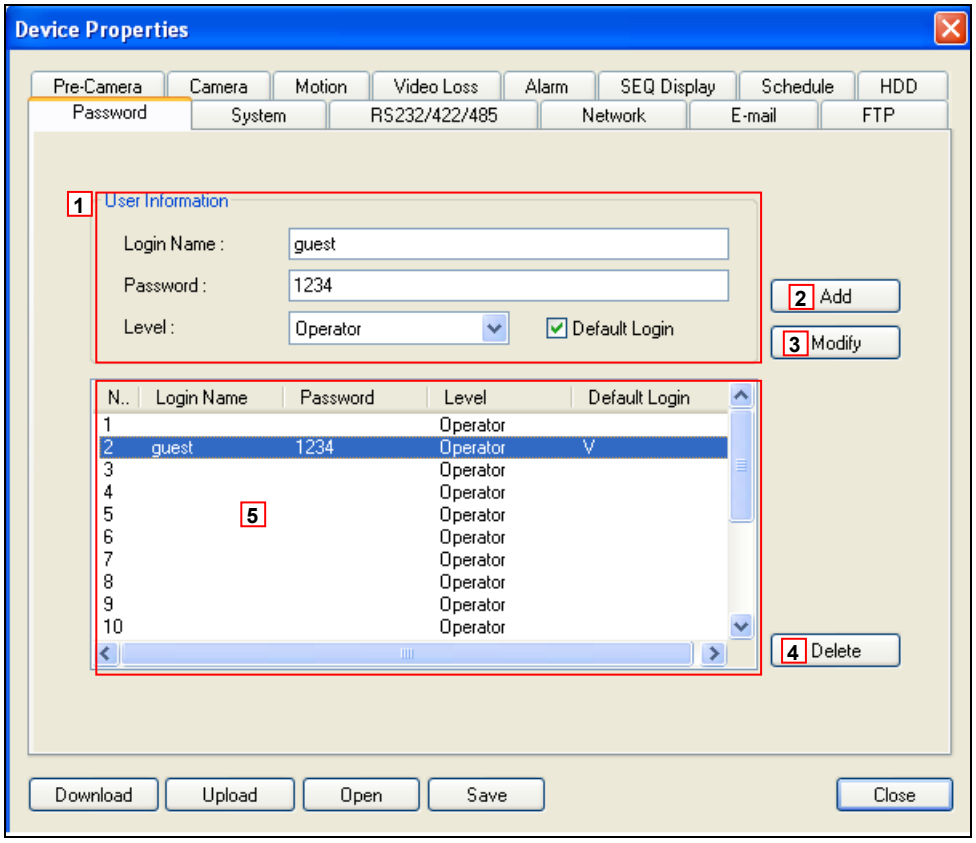
11.1.4.4.8 HDD



	Name		Description
1	Alarm Record	Auto Overwrite	Select this will enable the overwritten of old data when the disk capacity is achieved.
		HDD Full Action	Select this will enable full usage of HDD capacity.
		Duration	User may set the duration of warning period.
		Alarm Out	User may set the alarm out device.
		Buzzer	Click to enable buzzer warning.
		Email	Check to enable warning notification being sent to email.
		Log	Click to enable the creation of log.
2	Normal Record	Auto Overwrite	Select this will enable the overwritten of old data when the disk capacity is achieved.
		HDD Full Action	Select this will enable full usage of HDD capacity.
		Duration	User may set the duration of warning period.
		Alarm Out	User may set the alarm out device.
		Buzzer	Click to enable buzzer warning.
		Email	Click to enable warning notification being sent to email.
		Log	Click to enable the creation of log.

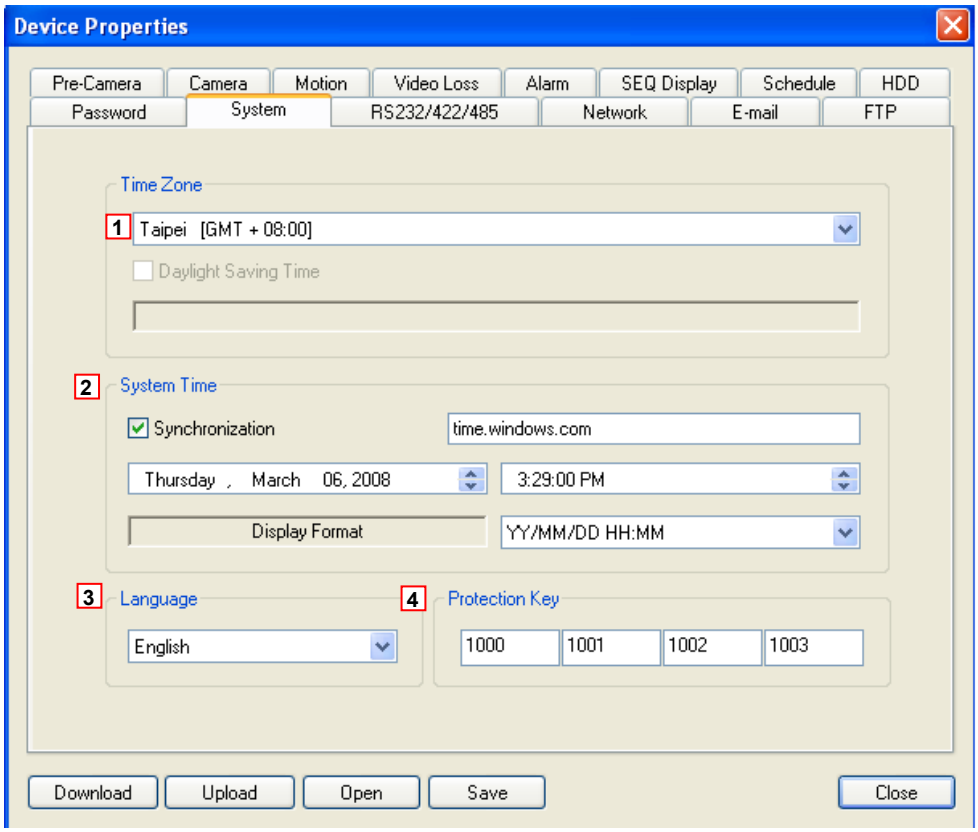
11.1.4.4.9 Password

This configuration allows administrator to assign login name and password to other users.



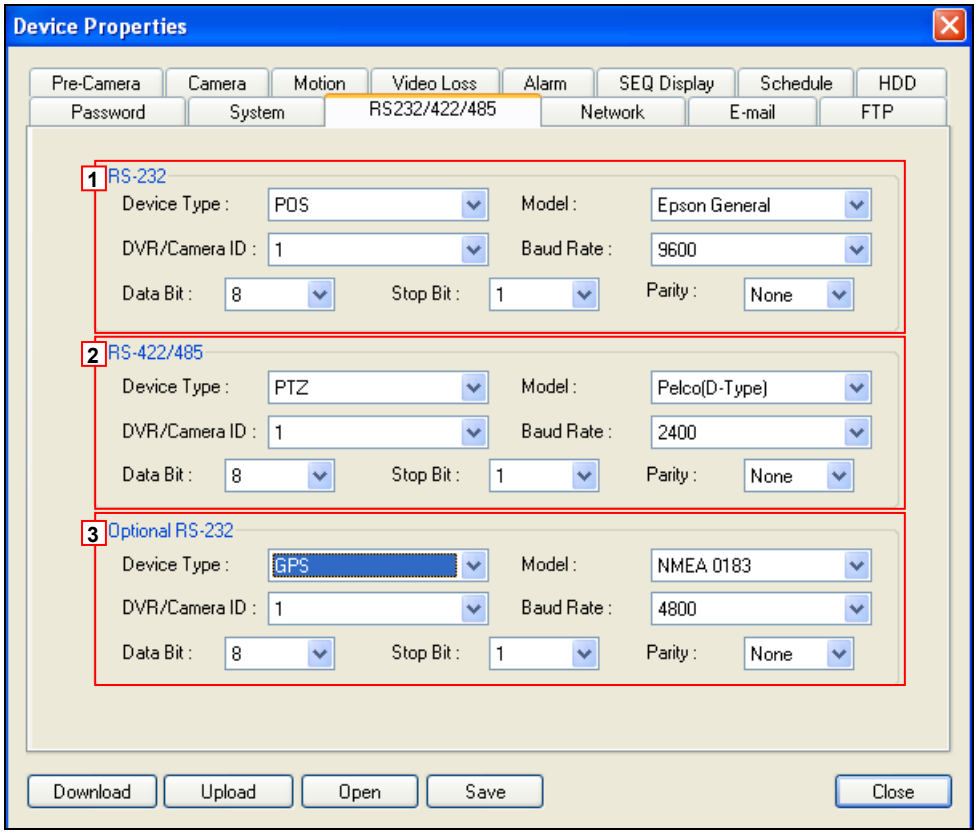
	Name	Description
1	User Information	Administrator can create user accounts for other users by assigning login name, password and user level.
2	Add	Click to add a new user account.
3	Modify	Click to change the user account information.
4	Delete	Click to delete a user account.
5	User List	The window displays all the user accounts.

11.1.4.4.10 System



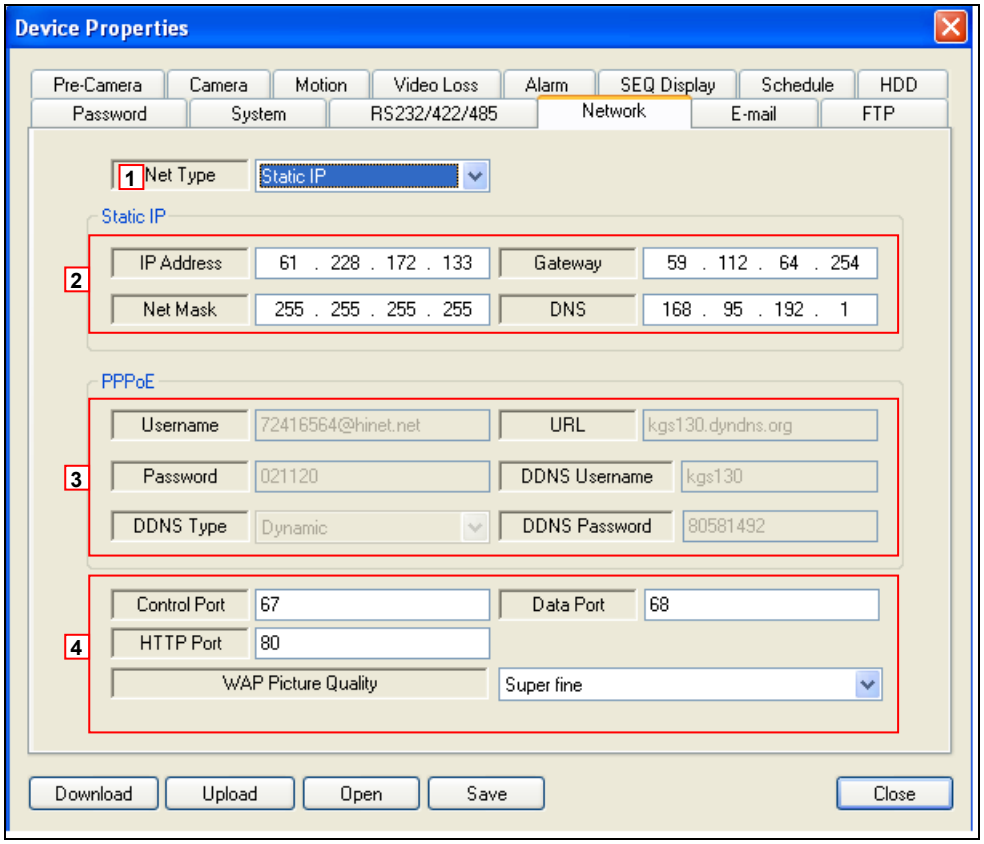
	Name	Description
1	Time zone	Select the suitable time zone from the drop down menu.
2	System time	User can manually set the time of the system or set the system to synchronize its time with a specific standard time server.
3	Language	Choose a language setting from the drop down menu.
4	Protection Key	This function is currently inapplicable.

11.1.4.4.11 RS232/422/485



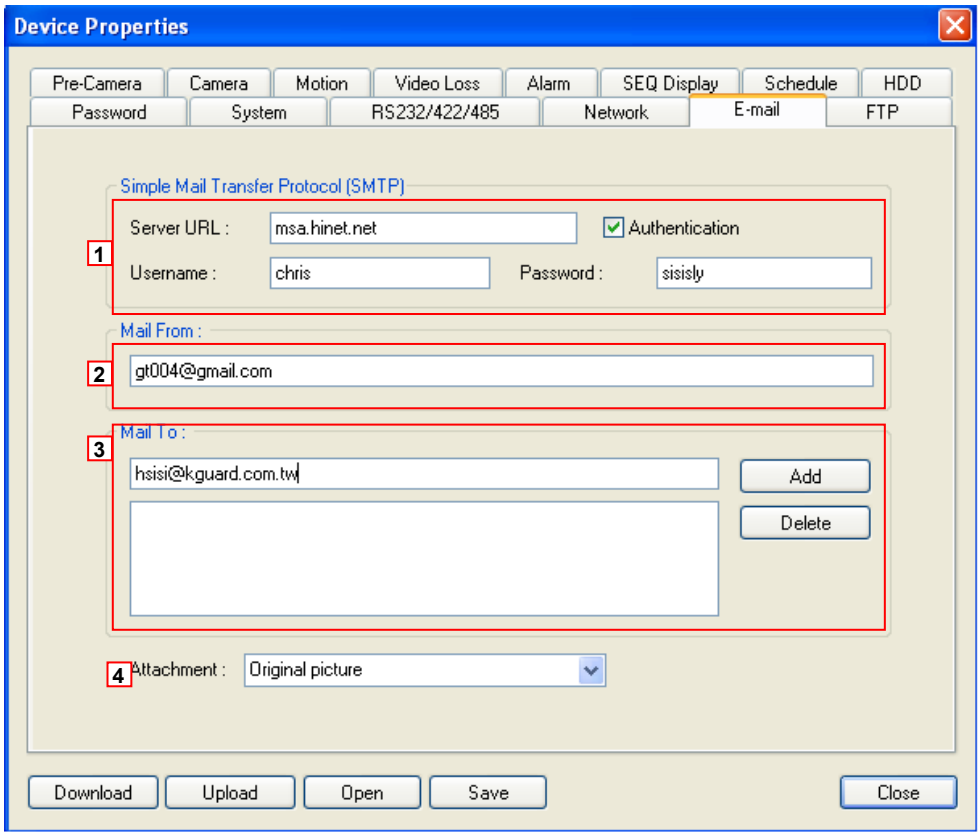
	Name	Description
1	RS-232	Select the appropriate device that uses the RS-232 signal, device model, camera ID, baud rate, data bit, stop bit and parity from the drop down menus.
2	RS-422/485	Select the appropriate device that uses the RS-422/485 signal, device model, camera ID, baud rate, data bit, stop bit and parity from the drop down menus.
3	Optional RS-232	Select the appropriate device that uses the RS-232 signal, device model, camera ID, baud rate, data bit, stop bit and parity from the drop down menus.

11.1.4.4.12 Network



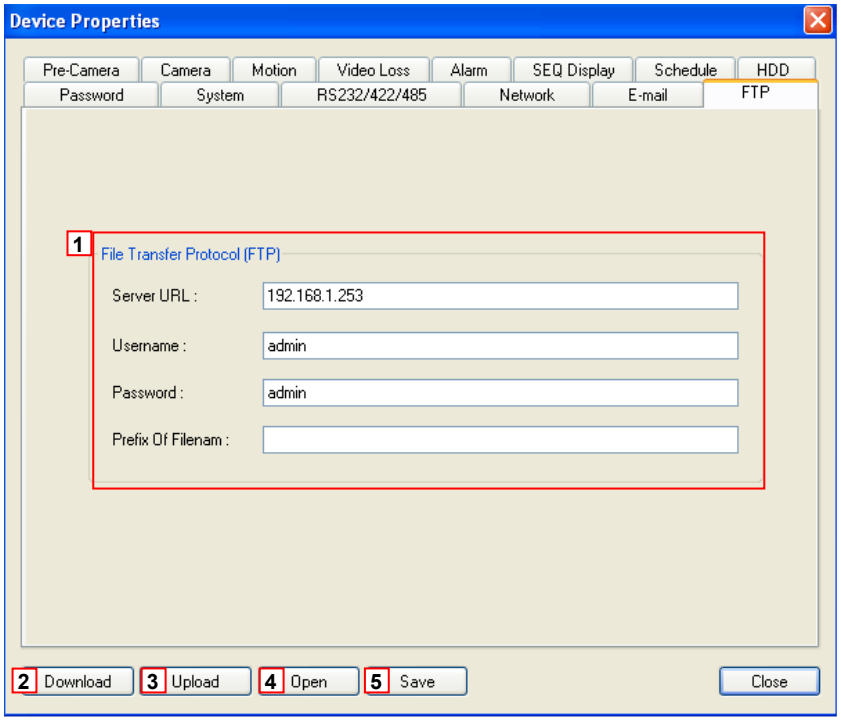
	Name	Description
1	Net Type	Choose the appropriate net type to configure. There are 3 types of net: Static IP, PPPoE and DHCP
2	Static IP	Type in the correct IP address, net mask, gateway and DNS. *Note: This section is only available when Static IP net is selected.*
3	PPPoE	Type in all the information in their respective columns. *Note: This section is only available for information entry when PPPoE net is selected.*
4	Control Port/ Data Port/ HTTP Port/ Warp Picture Quality	Fill in the correct port number in their respective columns. *Note This section is available for both static IP and PPPoE net.*

11.1.4.4.13 Email



	Name	Description
1	SMTP	Type in the server URL, username and password.
2	Mail From	Enter the email address of the sender.
3	Mail To	Enter the email address of the recipient.
4	Attachment	User can select the type of image to be attached to the mail.

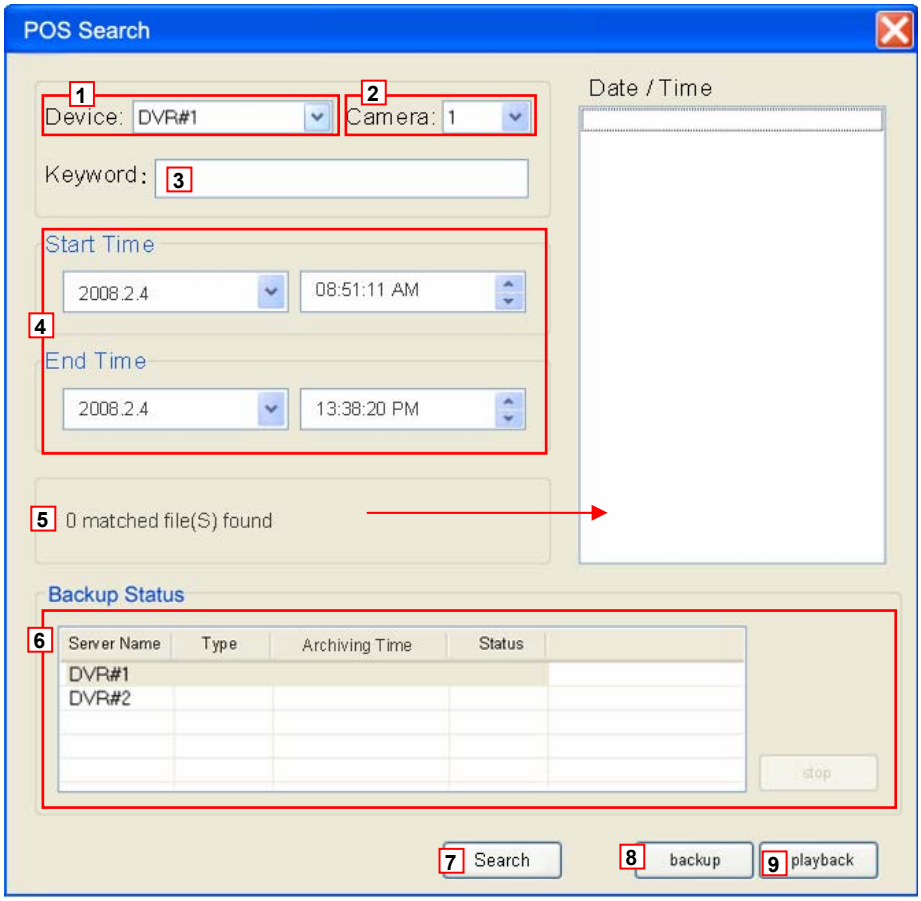
11.1.4.4.14 FTP



	Name	Description
1	File Transfer Protocol	Fill in the FTP server address, username and password. User may also choose to assign a prefix for each file to enable easy differentiation.
2	Download	This function enables user to download the original configuration from the host system should any accidental modification occur. It also allows user to reconfirm whether the modified configuration has been properly updated to the host system.
3	Upload	Click to upload the modified configuration to the host system through internet.
4	Open	Click to apply the previously saved setting to the current configuration.
5	Save	Press to save the setting to a specified location.

11.1.5POS Search

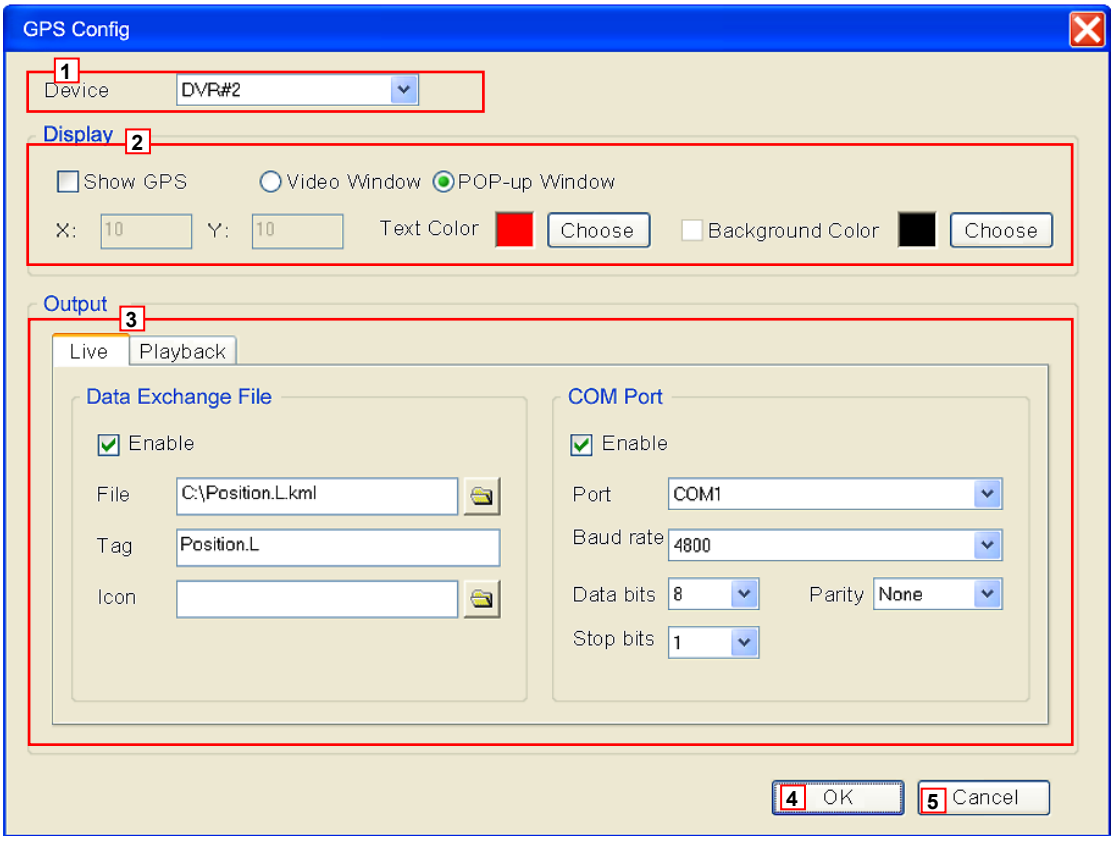
This feature is designed to allow IE client to be able to search for POS data file of a specific device within a specific range of time period. User can also create a backup for POS data and play data file.



	Name	Description
1	Device	Select the device for the retrieval of POS data.
2	Camera	Select the camera source of the POS data.
3	Keyword	Type in the keyword of the data file as part of the search criteria.
4	Start Time / End Time	Specify the time period for the retrieval of the POS record.
5	Result list	This section shows the number of files found and a list of file that matches the criteria will be shown in the **Date/Time** window.
6	Backup status	This window will show the status of the backup process.
7	Search	Press to start the search process.
8	Backup	Pres to start the backup process of the selected record.
9	Playback	Press to start the playback of the highlighted file.

11.1.6 GPS Configuration

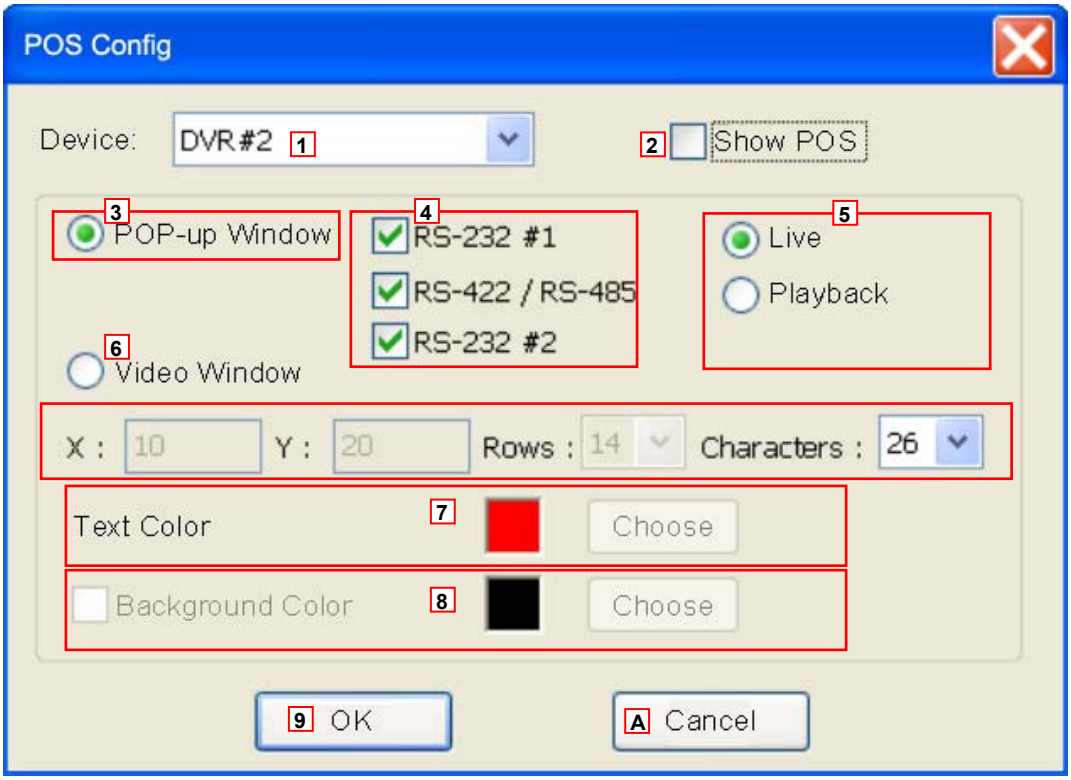
This feature is designed to allow user to be able to configure the GPS setting via IE.



	Name		Description
1	Device		Select the DVR that is connected with GPS.
2	Display	Show GPS	Click to enable the display of GPS.
		Video Window	Click to display GPS in the video channel of the selected camera. User may adjust the coordinates of the window through the X & Y values.
		Pop-up window	Check to display GPS in a separate window.
		Text color	User can select the font color for the GPS text.
		Background Color	User can select the background color of the GPS window.
	Output	Live/Playback	User can choose to configure live or playback GPS output configuration.
		Live >>Data Exchange File	This is to allow user to save the live or playback GPS data to a specified folder.
		Live >>COM port	This is to configure the port used for GPS device.
4	OK		Click to save the changes.
5	Cancel		Click to cancel the changes.

11.1.7POS Configuration

This feature is designed to allow user to be able to configure the POS setting via IE.



	Name	Description
1	Device	Select the DVR that is connected with POS.
2	Show POS	Click to display the POS window on the screen.
3	POP-up Window	Click to display the POS information on a separate window.
4	Signal Type	Click to select the signal that applies.
5	Live/Playback	User can choose to configure live or playback POS output configuration.
6	Video Window	Click to display POS in the video channel of the selected camera. User may adjust the size of the display window through the Rows/Character value and the coordinates of the window through the X & Y values.
7	Text Color	User can select the font color for the POS text.
8	Background Color	Click to apply background color to the display window. User can select the background color of the POS window.
9	OK	Click to save the changes.
A	Cancel	Click to cancel the changes.

11.2 Remote Access via PDA

Attention: User must properly configure the network setup (section 7.7.10) and connect the system to the internet for PDA access to function.

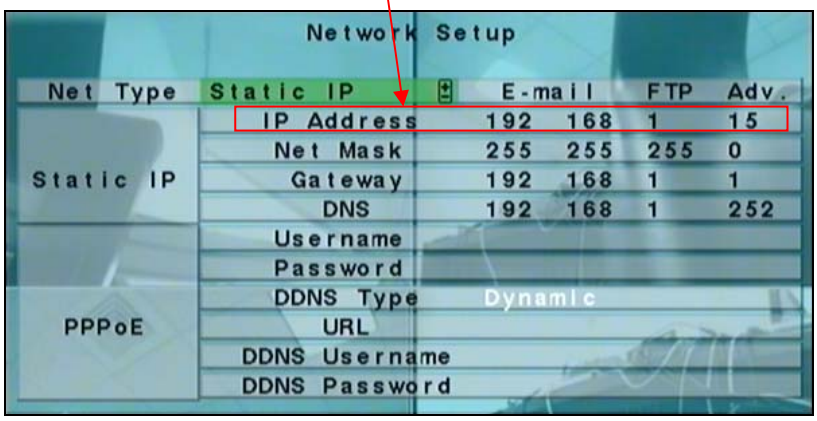
This is an example using Nokia N73

Step 1: Connect to internet by clicking on **Web**.

Step 2: Type in the IP address of the 9CH/16CH system(refer to 7.7.10 Network) to access the connection page.

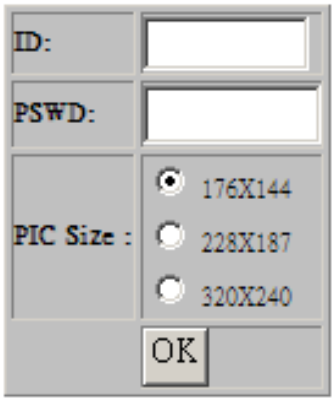
http://(**IP address of the 9CH/16CH**)/wap.htm

ex. http://**192.168.1.15**/wap.htm



Step 3: Press yes to confirm connection.

Step 4: Type in the login ID and password to log into the system.



- The default login name: aa

- The default password: 11

Step 5: Click on the camera number to view image of the camera. Finish your setting then click **OK** to view image of the camera.

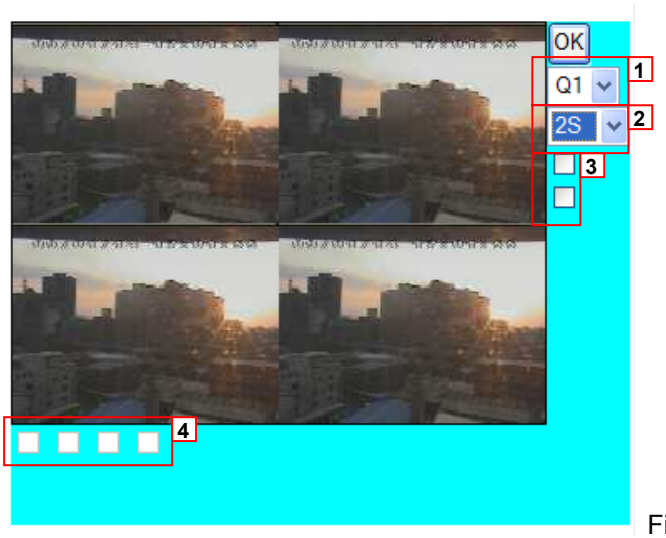


Figure 1

	Key Descreption
1	Display format: Display Channel 1/2/3/4 or 4 channel at a time.
2	Refresh image from 0 seconds (live video) to 30 seconds.
3	DO (Digital Output)
4	DI (Digital lutput)

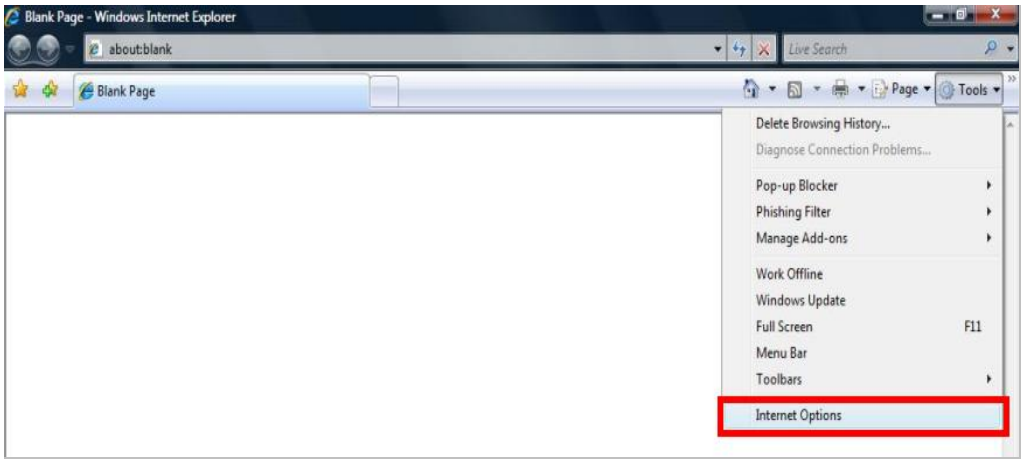
Figure 2 (Q4)

Click **Return** to Figure 1. You could update your setting.

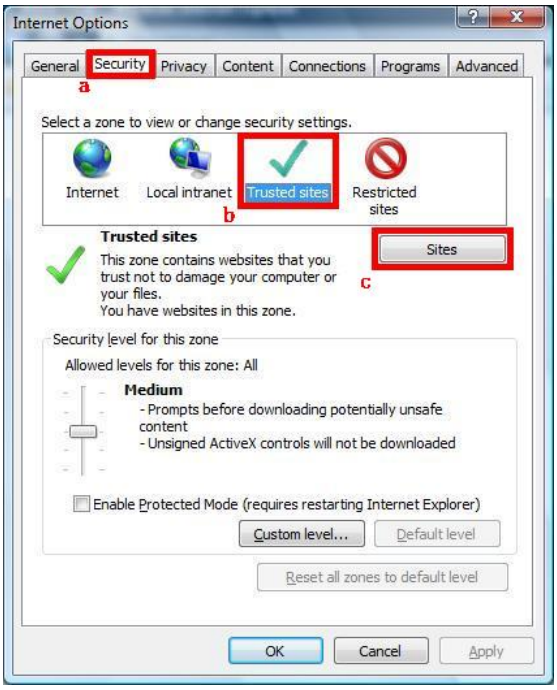
Step 1	Step 2	Step 3	Step 4	Step 5

11.3 IE Remote Access via Vista

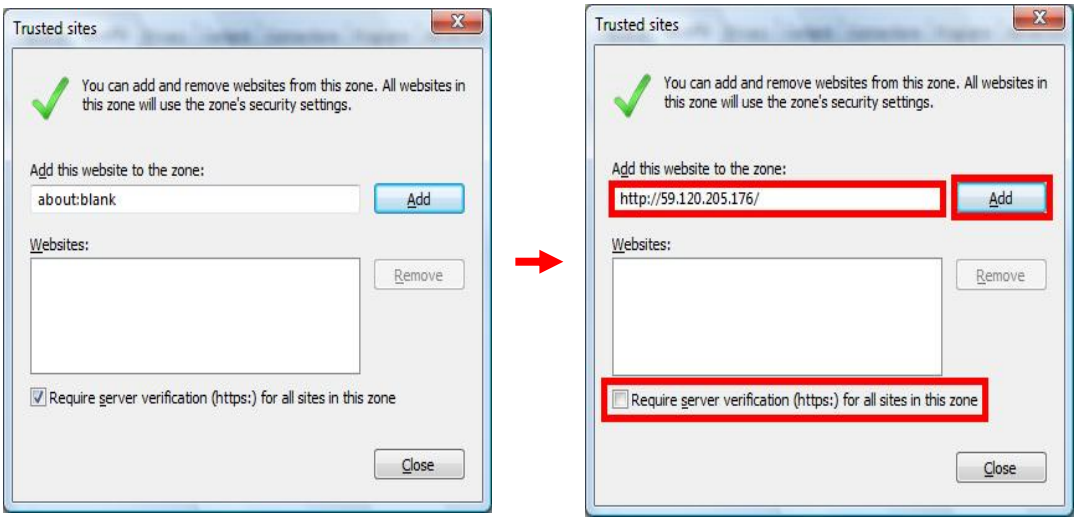
Step1. Open IE browser. Click on “Tools” and go to “Internet Options”.



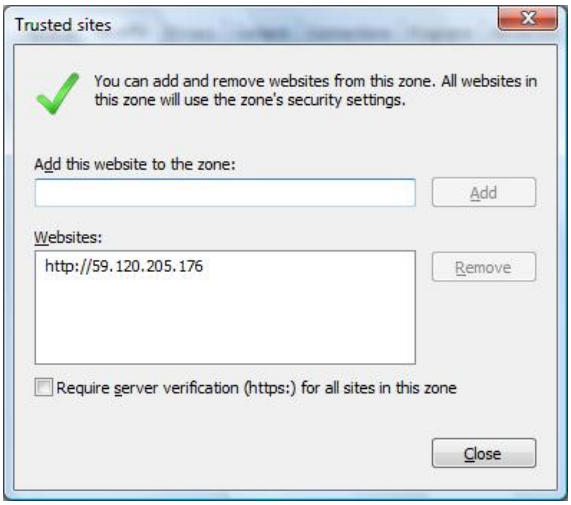
Step2. (a) Click on “Security” tab
(b) Click on “Trusted sites”.
(c) Click on “Sites”



Step3. Enter the IP address of Standalone DVR. And untick the option on “Require server verification (https:) for all sites in this zone”. Then click on “Add”.


Trusted sites
You can add and remove websites from this zone. All websites in this zone will use the zone's security settings.
Add this website to the zone:
about:blank
Add
Websites:
Remove
Require server verification (https:) for all sites in this zone
Close
Trusted sites
You can add and remove websites from this zone. All websites in this zone will use the zone's security settings.
Add this website to the zone:
http://59.120.205.176/
Add
Websites:
Remove
Require server verification (https:) for all sites in this zone
Close

The IP address is now save in Trusted sites. Click on “Close”.

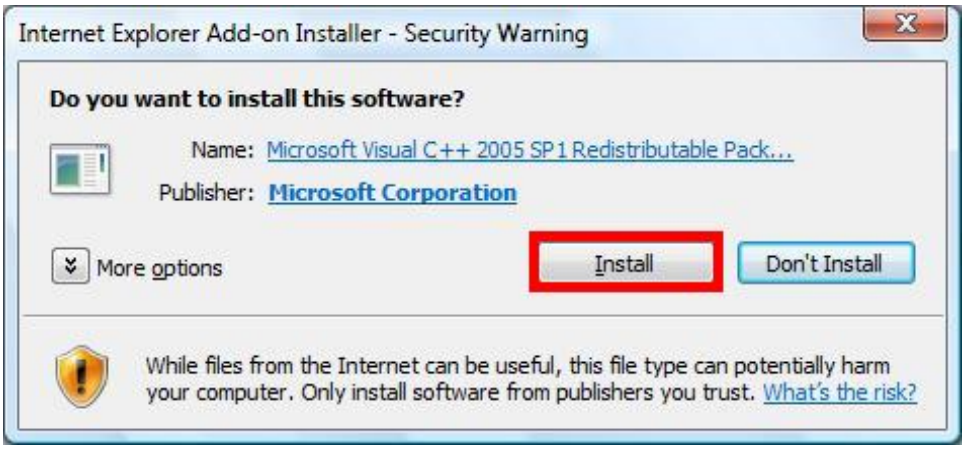

Trusted sites
You can add and remove websites from this zone. All websites in this zone will use the zone's security settings.
Add this website to the zone:
Add
Websites:
http://59.120.205.176
Remove
Require server verification (https:) for all sites in this zone
Close

Step4. Enter Standalone IP address in IE browser.

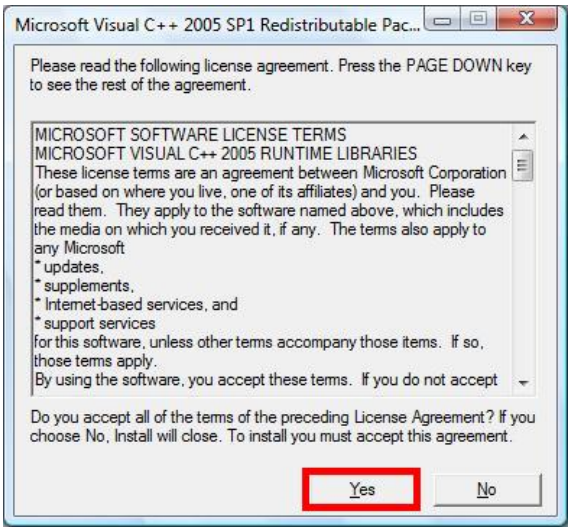
Step5. Click on “Install ActiveX Control” option.

IE-Plugin - Windows Internet Explorer
http://59.120.205.176/ie.htm
Live Search
IE-Plugin
Page
Tools
To help protect your security, Internet Explorer stopped this site from installing an ActiveX control on your computer. Click here for options...
Install ActiveX Control...
What's the Risk?
More information
Click here to install the following ActiveX control: 'IEPlugin.cab' from 'KGUARD SECURITY CO., LTD.'...

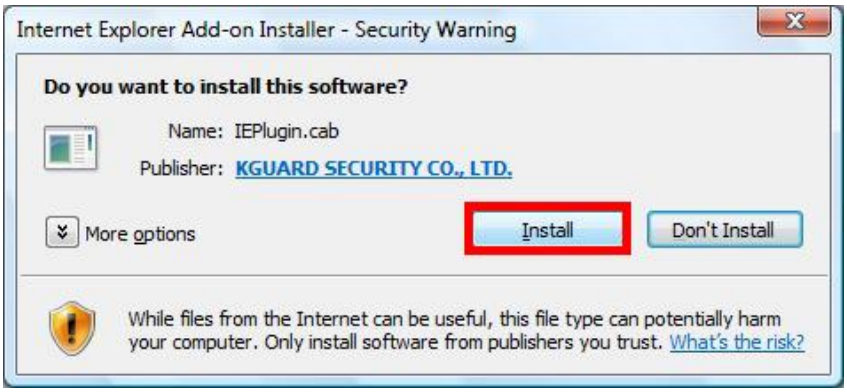
Step6. Click on “Install”.


Internet Explorer Add-on Installer - Security Warning
Do you want to install this software?
Name: Microsoft Visual C++ 2005 SP1 Redistributable Pack...
Publisher: Microsoft Corporation
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

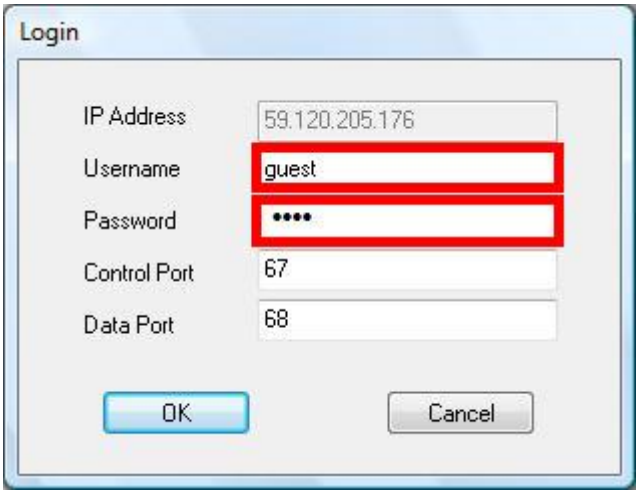
Step7. Click on “Yes”.


Microsoft Visual C++ 2005 SP1 Redistributable Pac...
Please read the following license agreement. Press the PAGE DOWN key to see the rest of the agreement.
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT VISUAL C++ 2005 RUNTIME LIBRARIES
These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
* updates,
* supplements,
* Internet-based services, and
* support services
for this software, unless other terms accompany those items. If so, those terms apply.
By using the software, you accept these terms. If you do not accept
Do you accept all of the terms of the preceding License Agreement? If you choose No, Install will close. To install you must accept this agreement.
Yes
No

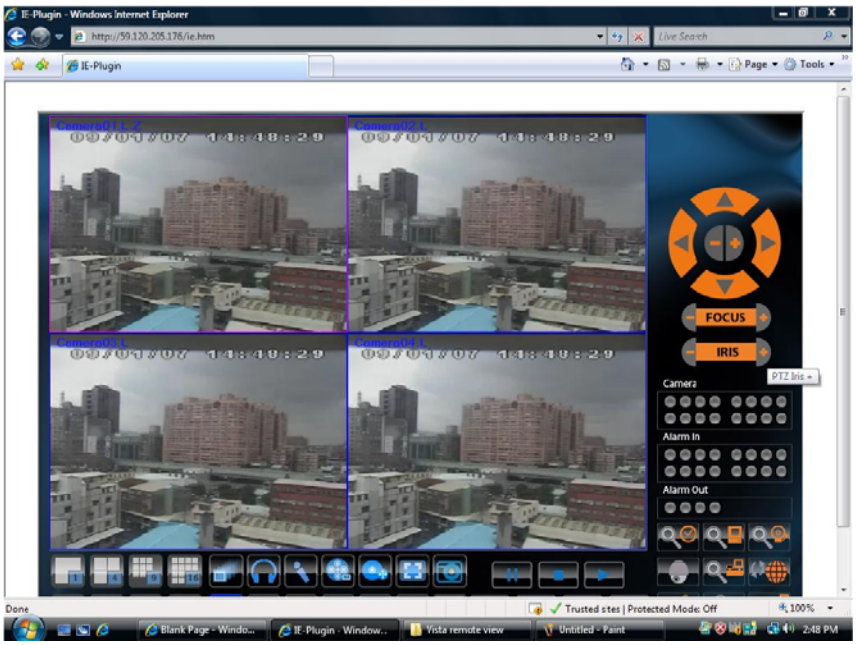
Step8. Click on “Install”.


Internet Explorer Add-on Installer - Security Warning
Do you want to install this software?
Name: IEPlugin.cab
Publisher: KGUARD SECURITY CO., LTD.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

Step9. Enter “User name” and password. Then click on “OK”.



Step10. Now you should see the Standalone DVR remote viewing with IE browser.



12 CMS2000

CMS2000 is the only security solution that offers multiple point access and multiple device integration over a network system. To increase its diversified capability, the system is fully compatible with almost all of our security solution series including DVS, standalone DVRs and DVR cards. CMS2000 is designed for its IP based versatility and its integrability with DVR and DVS to enhance its security integrity. Therefore administrator and authorized clients can easily monitor and control the activities and security of their respected settings and playback recorded data just with a click on the CMS2000 network.

Benefits

1. Multi-Level Authority Control
2. E-map graphic control menu
3. Multiple camera real-time monitoring
4. Historical video data playback
5. Control up to 100/300/600 Cameras
6. Remote control management
7. Hybrid system integration
8. Web-based structure design

NOTE:

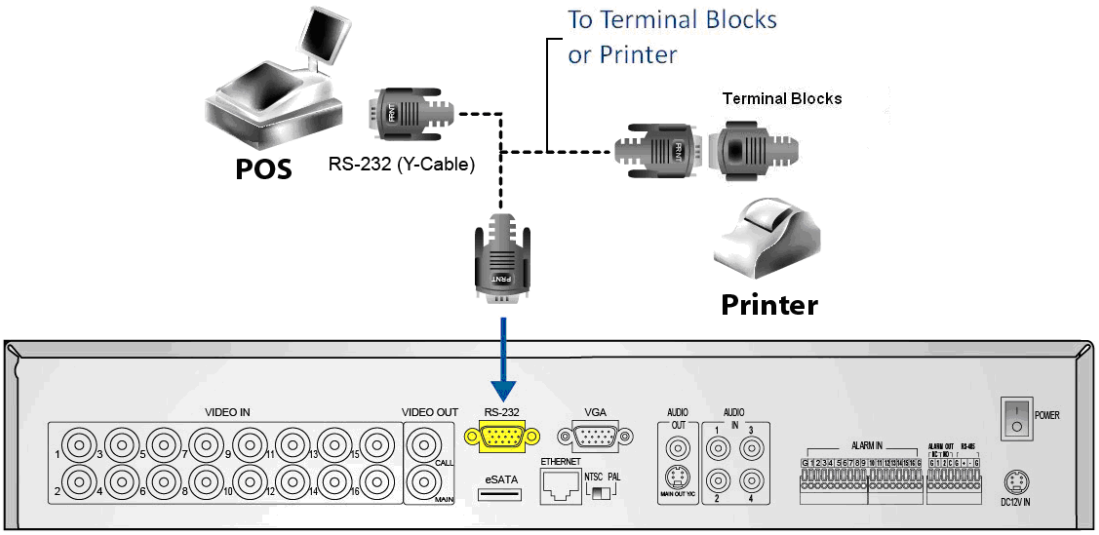
This DVR system fully supports CMS2000 security solution series. Please refer to the following for detail description on CMS2000.

13 POS Connection

The Standalone DVR support P.O.S. machine connection and support only general protocol of EPSON printer.

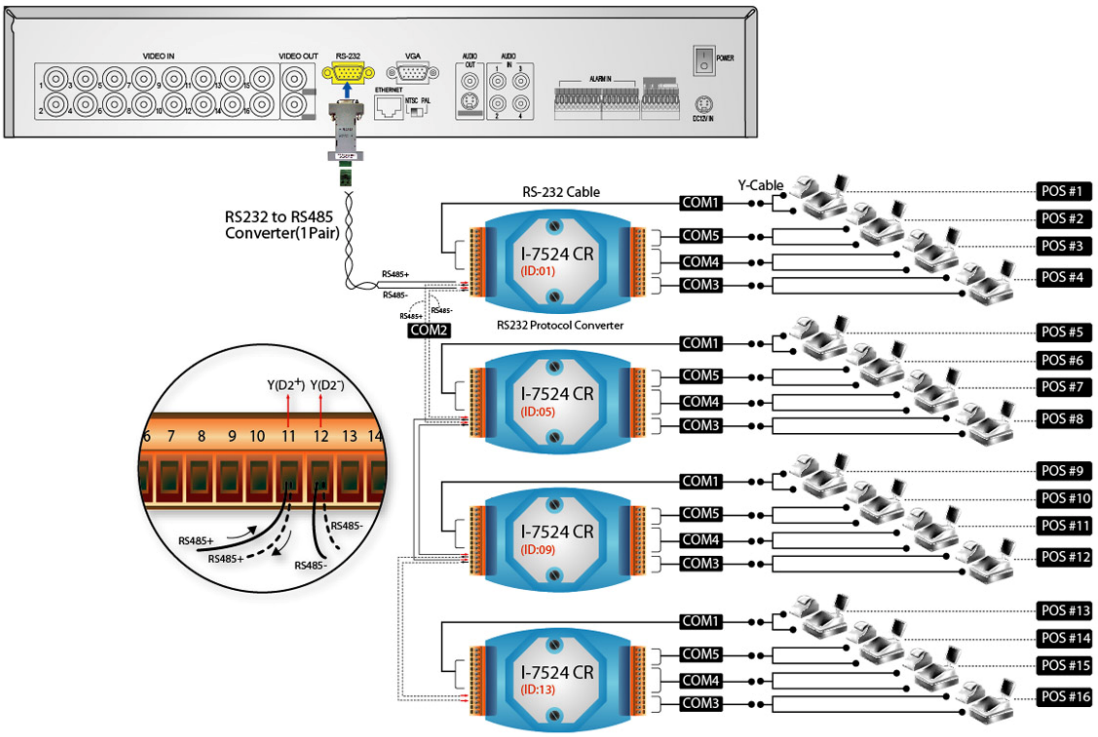
13.1 Connection Diagram & Package

- ONE POS Connection Diagram:



You could connect to printer directly or using terminal Block for without printer application.

- Multi-POS Connection Diagram



■ ***Package Content***

9CH Multi-POS up to 9 POS

1. KGA001(RS232 TO RS485 Converter) ---------- x1
2. I-7524CR(RS232 Protocol Converter) ---------- x2
3. RS-232 CABLE ---------- x8
4. RS-485 CABLE ---------- x1
5. Y-CABLE ---------- x8

SH-16ch Multi-POS up to 16 POS

1. KGA001(RS232 TO RS485 Converter) ---------- x1
2. I-7524CR(RS232 Protocol Converter) ---------- x4
3. RS-232 CABLE ---------- x16
4. RS-485 CABLE ---------- x1
5. Y-CABLE ---------- x16

13.2 P.O.S. Setting of Standalone DVR

You could to do RS232/422/485 Setting via Local or Remote Access.

13.2.1 RS232/422/485 Setting via Local

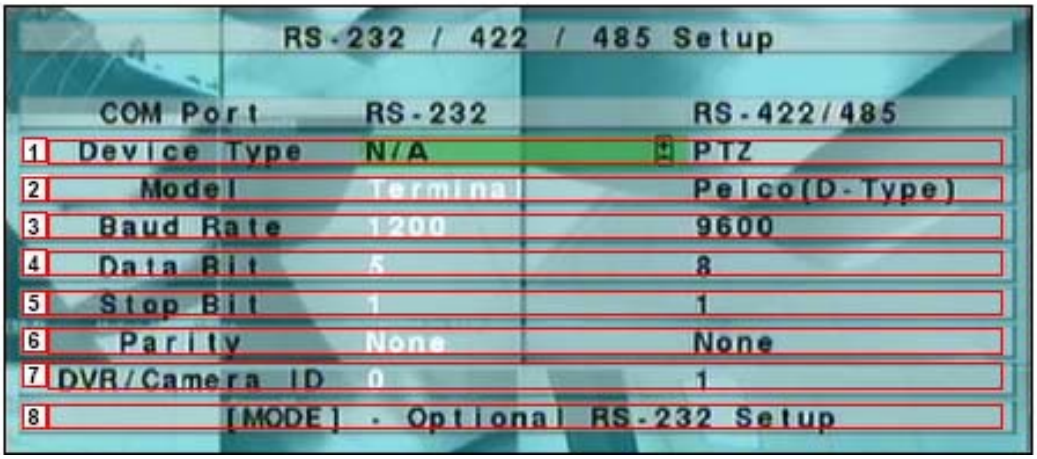
13.2.1.1 RS232/422/485 Setting of Local Access

Click "Menu" on the remote controller → Login (default login name: aa & login password: 11) → Choose "Setup" operation → Choose "RS-232 / 422 / 485" operation (as below)

User needs to configure this setting for the external hardware such as PTZ speed dome, P.O.S., GPS and DVR keyboard to function properly.

For P.O.S. Setting as below:

Device Type : POS
Model : Epson General
Baud Rate : 9600
Data Bit : 8
Stop Bit : 1
Parity : None



	Name	Description
1	Device Type	Press ± to select the appropriate device.
2	Model	Press ± to select the appropriate model for the device.
3	Baud Rate	Press ± to set the baud rate.
4	Data Bit	Press ± to set the data bit.
5	Stop Bit	Press ± to set the stop bit.
6	Parity	Press ± to set the parity.
7	DVR/Camera ID	Press ± to assign the DVR/Camera an ID.
8	MODE	Click Mode to enter the optional RS-232 setting.

NOTE: POS Models support by S130/SH130/SH330/SH530：

Serial Epson-TM8811, TM200, TMU295, TMU300, TMU675, TMT882, RPU420, MD332S Printers. Plain ASCII code.

13.2.1.2 Display Model

Click "Esc" (thrice) on the remote controller to access Main Screen as below.

Step A. P.O.S. Display Setting

Click Set/Enter on the Remote Controller to call up the GPS/POS setting.

	Name	Description
1	Type	Click [+/−] to select either GPS or P.O.S. as the display type.
2	Position	Click [+/−] to adjust the position of the GPS/P.O.S. display window.
3	Background	Click [+/−] to select the background color of the display window.
4	Rows	Click [+/−] to set the height of the P.O.S. display window. *NOTE: This feature is only available for P.O.S. display.*
5	Characters	Click [+/−] to set the width of the P.O.S. display window.

		NOTE: This feature is only available for P.O.S. display
6	Enter	Click to save and exit the setting.
7	ESC	Click to exit without saving the configuration.

NOTE:

User needs to configure RS-232/422/485 setting for P.O.S. to function properly. (Please cross-reference to section ''RS-232/422/485 setup" of Standalone DVR Manual)

Supported P.O.S. Devices：

Serial Epson-TM8811, TM200, TMU295, TMU300, TMU675, TMT882, RPU420, MD332S Printers.

Plain ASCII code.

Step B. Click Enter / Esc on the Remote Controller then display of 4 video channels with 1 P.O.S. channel overlay at the center of the screen as below example figure.

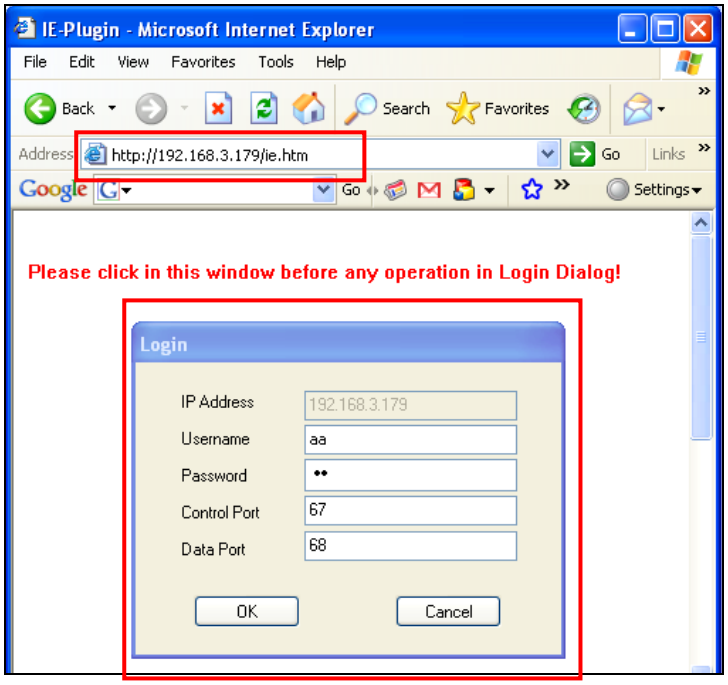
13.2.2 RS232/422/485 Setting via Remote

13.2.2.1 RS232/422/485 Setting of Remote Access

Step A. Type in the IP address of Standalone DVR in the IE address bar. Type in the login name, password, control port and data port information (as Figure A-1) to access the system(as Figure A-2).

- The default login name: aa

- The default password: 11

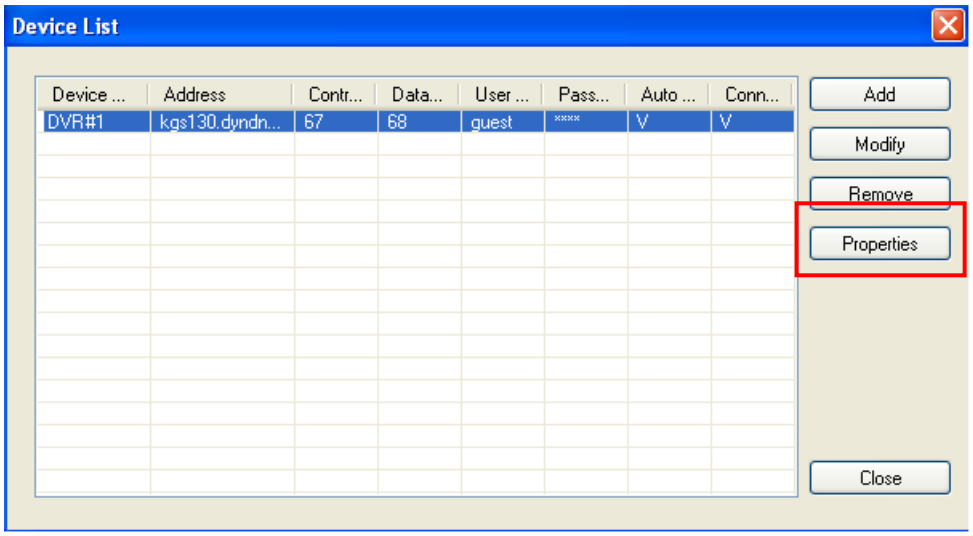


<Figure A-1>

<Figure A-2>

Step B. Click ‘‘Server Configuration’’ to access operation as below.

Then Press Properties to enter the server configuration page.

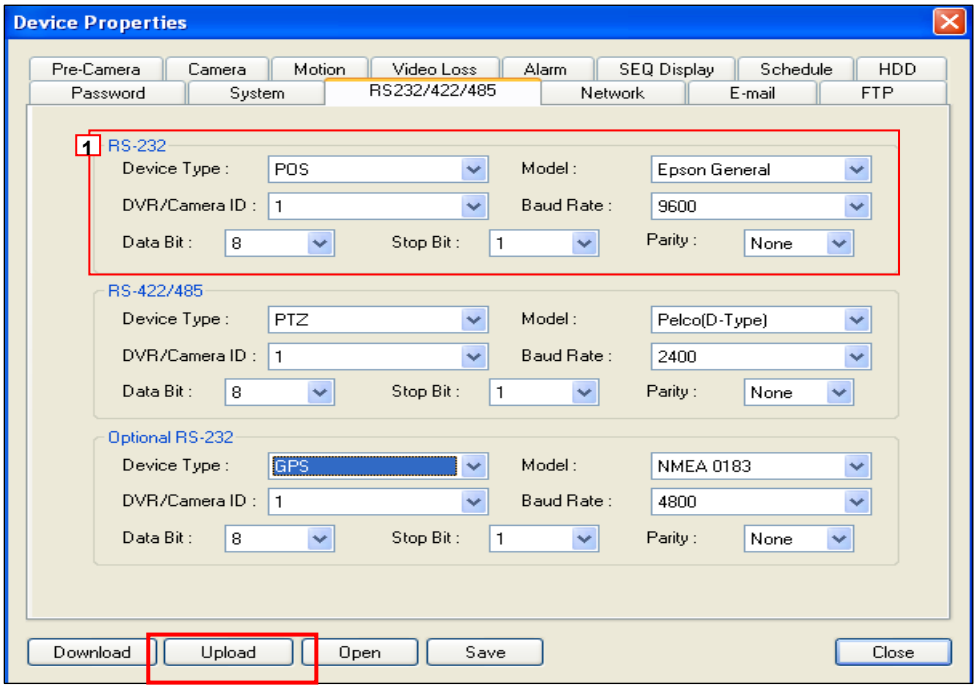


Step C. RS232/422/485 Setting

First, please finish RS-232 For P.O.S. Setting as below:

Device Type : POS
Model : Epson General
DVR/Camera ID:1
Baud Rate : 9600
Data Bit : 8
Stop Bit : 1
Parity : None

After finish RS-232 For P.O.S. Setting, please click Upload button to update DVR Server Status.

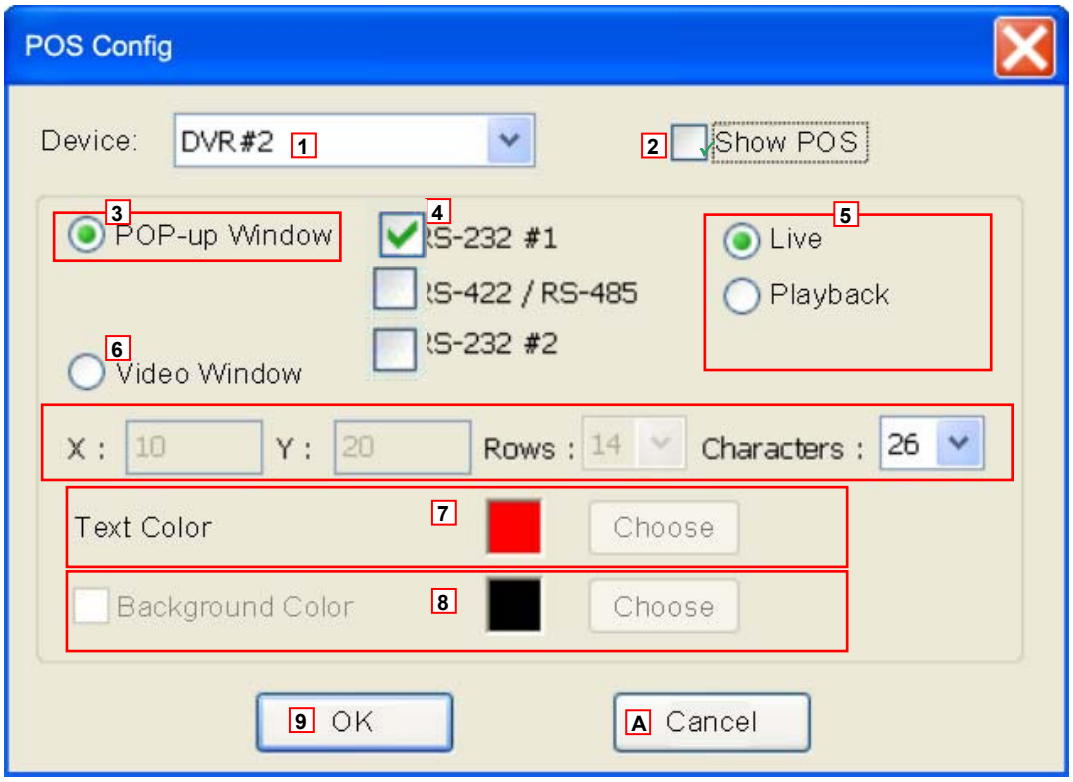


	Name	Description
1	RS-232	Select the appropriate device that uses the RS-232 signal, device model, camera ID, baud rate, data bit, stop bit and parity from the drop down menus.

13.2.2.2 Display Model

P.O.S. Configuration

This feature is designed to allow user to be able to configure the P.O.S. setting via IE.



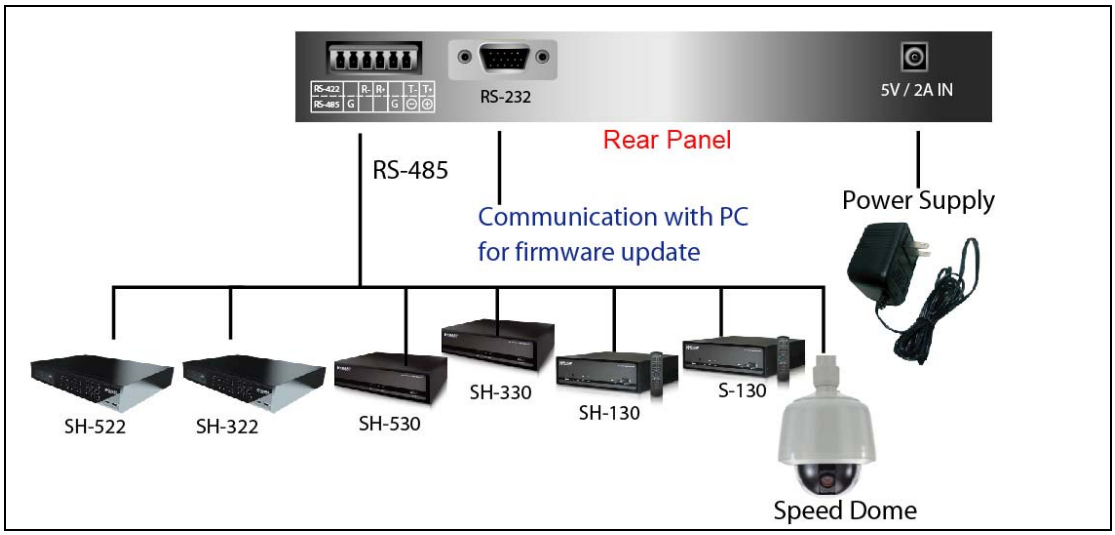
	Name	Description
1	Device	Select the DVR that is connected with P.O.S..
2	Show P.O.S.	Click to display the POS window on the screen.
3	POP-up Window	Click to display the POS information on a separate window.
4	Signal Type	Click to select the signal that applies.
5	Live/Playback	User can choose to configure live or playback POS output configuration.
6	Video Window	Click to display POS in the video channel of the selected camera. User may adjust the size of the display window through the Rows/Character value and the coordinates of the window through the X & Y values.
7	Text Color	User can select the font color for the POS text.
8	Background Color	Click to apply background color to the display window. User can select the background color of the POS window.
9	OK	Click to save the changes.
A	Cancel	Click to cancel the changes.

Appendix A –Time Zone

Time Zone	Offset	DST	Start	End
Samoa	GMT – 11:00			
Hawaii	GMT – 10:00			
Alaska	GMT – 09:00	ˇ	Mar, 2nd Sun, 2:00	Nov, 1st Sun, 2:00
Pacific Time (US & Canada)	GMT – 08:00	ˇ	Mar, 2nd Sun, 2:00	Nov, 1st Sun, 2:00
Arizona, US Mountain	GMT – 07:00			
Chihuahua, La Paz, Mazatlan	GMT – 07:00	ˇ	May, 1st Sun, 2:00	Sep, last Sun, 2:00
Mountain Time (US & Canada)	GMT – 07:00	ˇ	Mar, 2nd Sun, 2:00	Nov, 1st Sun, 2:00
Central America, Saskatchewan	GMT – 06:00			
Central Time (US & Canada)	GMT – 06:00	ˇ	Mar, 2nd Sun, 2:00	Nov, 1st Sun, 2:00
Guadalajara, Mexico City, Monterrey	GMT – 06:00	ˇ	May, 1st Sun, 2:00	Sep, last Sun, 2:00
Bogota, Lima, Quito, Indiana (East)	GMT – 05:00			
Eastern Time (US & Canada)	GMT – 05:00	ˇ	Mar, 2nd Sun, 2:00	Nov, 1st Sun, 2:00
Atlantic Time (Canada)	GMT – 04:00	ˇ	Mar, 2nd Sun, 2:00	Nov, 1st Sun, 2:00
Caracas, La Paz	GMT – 04:00			
Santiago	GMT – 04:00	ˇ	Oct, 2nd Sun, 0:00	Mar, 2nd Sun, 0:00
Newfoundland	GMT – 03:30	ˇ	Apr, 1st Sun, 2:00	Oct, last Sun, 2:00
Brasilia	GMT – 03:00	ˇ	Oct, 3rd Sun, 2:00	Feb, 3rd Sun, 2:00
Buenos Aires, Georgetown	GMT – 03:00	ˇ	Oct, 3rd Sun, 2:00	Feb, 2nd Sun, 2:00
Greenland	GMT – 03:00	ˇ	Mar, last Sun, 1:00	Oct, last Sun, 1:00
Mid-Atlantic	GMT – 02:00	ˇ	Mar, last Sun, 2:00	Sep, last Sun, 2:00
Azores	GMT – 01:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Cape Verde	GMT – 01:00			
Casablanca, Monrovia	GMT + 00:00			
Dublin, London	GMT + 00:00	ˇ	Mar, last Sun, 1:00	Oct, last Sun, 2:00
Western Europe, Central Europe	GMT + 01:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
West Central Africa	GMT + 01:00			
Eastern Europe	GMT + 02:00	ˇ	Mar, last Sun, 0:00	Oct, last Sun, 1:00
Cairo	GMT + 02:00	ˇ	Apr, last Fri, 2:00	Sep, last Fri, 2:00
Harare, Pretoria	GMT + 02:00			
Helsinki, Kyiv, Riga, Sofia, Tallinn	GMT + 02:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Jerusalem	GMT + 02:00	ˇ	Apr 1, 2:00	Oct, 2nd Sun, 2:00
Baghdad	GMT + 03:00	ˇ	Apr 1, 3:00	Oct 1, 4:00
Kuwait, Riyadh, Nairobi	GMT + 03:00			
Moscow, St. Petersburg, Volgograd	GMT + 03:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00

Tehran	GMT + 03:30	ˇ	Mar, 4th Tue, 2:00	Sep, 4th Thu, 2:00
Abu Dhabi, Muscat	GMT + 04:00			
Baku, Tbilisi, Yerevan	GMT + 04:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Kabul	GMT + 04:30			
Ekaterinburg	GMT + 05:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Islamabad, Karachi, Tashkent	GMT + 05:00			
Chennai, Mumbai, New Delhi	GMT + 05:30			
Kathmandu	GMT + 05:45			
Almaty, Novosibirsk	GMT + 06:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Astana, Dhaka, Sri Lanka	GMT + 06:00			
Rangoon	GMT + 06:30			
Bangkok, Hanoi, Jakarta	GMT + 07:00			
Krasnoyarsk	GMT + 07:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Irkutsk, Ulaan Bataar	GMT + 08:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Beijing, Chingqing, H. K., Urumqi	GMT + 08:00			
Kuala Lumpur, Perth, Singapore	GMT + 08:00			
Taipei	GMT + 08:00			
Osaka, Seoul, Tokyo	GMT + 09:00			
Yakutsk	GMT + 09:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Adelaide	GMT + 09:30	ˇ	Oct, last Sun, 2:00	Mar, last Sun, 3:00
Darwin	GMT + 09:30			
Brisbane, Guam, Port Moresby	GMT + 10:00			
Canberra, Melbourne, Sydney	GMT + 10:00	ˇ	Oct, last Sun, 2:00	Mar, last Sun, 3:00
Hobart	GMT + 10:00	ˇ	Oct, 1st Sun, 2:00	Mar, last Sun, 3:00
Vladivostok	GMT + 10:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Magadan, Solomon Is.	GMT + 11:00			
Auckland, Wellington	GMT + 12:00	ˇ	Oct, 1st Sun, 2:00	Mar, 3rd Sun, 2:00
Fiji	GMT + 12:00			
Kamchatka	GMT + 12:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Anadyr	GMT + 13:00	ˇ	Mar, last Sun, 2:00	Oct, last Sun, 3:00
Nuku'alofa	GMT + 13:00			

Appendix B –Touch Board Connection Diagram



Appendix C – Recording Table Reference (NTSC)

NTSC Recording Time (in Hour) - For Reference Only										
System Storage (GB): 200										
Resolution	Quality	Average	Recording Rate (IPS)							
		Picture Size (KB)*			120	60	30	15	10	5
720x480	9	27.7					67	134	201	401
(Full D1)	8	24.5					76	151	227	454
	7	21.0					88	176	265	529
	6	18.4					101	201	302	604
	5	14.0					132	265	397	794
	4	11.3					164	328	492	983
	3	7.7					241	481	722	1443
	2	5.6					331	661	992	1984
	1	3.6					514	1029	1543	3086
720x240	9	13.9				67	133	266	400	799
(Half D1)	8	12.3				75	151	301	452	903
	7	10.5				88	176	353	529	1058
	6	9.2				101	201	403	604	1208
	5	7.0				132	265	529	794	1587
	4	5.7				162	325	650	975	1949
	3	3.9				237	475	950	1425	2849
	2	2.8				331	661	1323	1984	3968
	1	1.8				514	1029	2058	3086	6173
360x240	9	7.0			67	133	266	529	794	1587
(CIF)	8	6.2			75	149	299	597	896	1792
	7	5.2			88	176	353	712	1068	2137
	6	4.6			101	201	403	805	1208	2415
	5	3.5			132	265	529	1058	1587	3175
	4	2.9			162	325	650	1277	1916	3831
	3	2.0			237	475	950	1852	2778	5556
	2	1.4			331	661	1323	2646	3968	7937
	1	0.9			514	1029	2058	4115	6173	12346

* Average Picture Size is estimated based on typical camera scene, and averaged by H.264 I/P/P frames.

Appendix D – Recording Table Reference (PAL)

PAL Recording Time (in Hour) - For Reference Only										
System Storage (GB): 200										
Resolution	Quality	Average	Recording Rate (IPS)							
		Picture Size (KB)*			100	50	25	12.5	8	4
720x576	9	36.0					62	123	193	386
(Full D1)	8	32.0					69	139	217	434
	7	27.3					81	163	254	509
	6	21.3					104	209	326	652
	5	18.3					121	243	379	759
	4	14.7					151	302	472	945
	3	10.0					222	444	694	1389
	2	7.3					304	609	951	1903
	1	4.7					473	946	1478	2955
720x288	9	18.0				62	123	247	386	772
(Half D1)	8	16.0				69	139	278	434	868
	7	13.6				82	163	327	511	1021
	6	10.7				104	208	415	649	1298
	5	9.2				121	242	483	755	1510
	4	7.4				150	300	601	938	1877
	3	5.0				222	444	889	1389	2778
	2	3.7				300	601	1201	1877	3754
	1	2.4				463	926	1852	2894	5787
360x288	9	9.0			62	123	247	494	772	1543
(CIF)	8	8.0			69	139	278	556	868	1736
	7	7.2			82	163	327	654	1021	2042
	6	5.7			103	206	412	823	1286	2572
	5	5.0			121	242	483	966	1510	3019
	4	4.0			150	300	601	1201	1877	3754
	3	2.8			222	444	889	1778	2778	5556
	2	2.2			292	585	1170	2339	3655	7310
	1	1.4			463	926	1852	3704	5787	11574

* Average Picture Size is estimated based on typical camera scene, and averaged by H.264 I/P/P frames.

Appendix E –Standalone DVR access via router setting

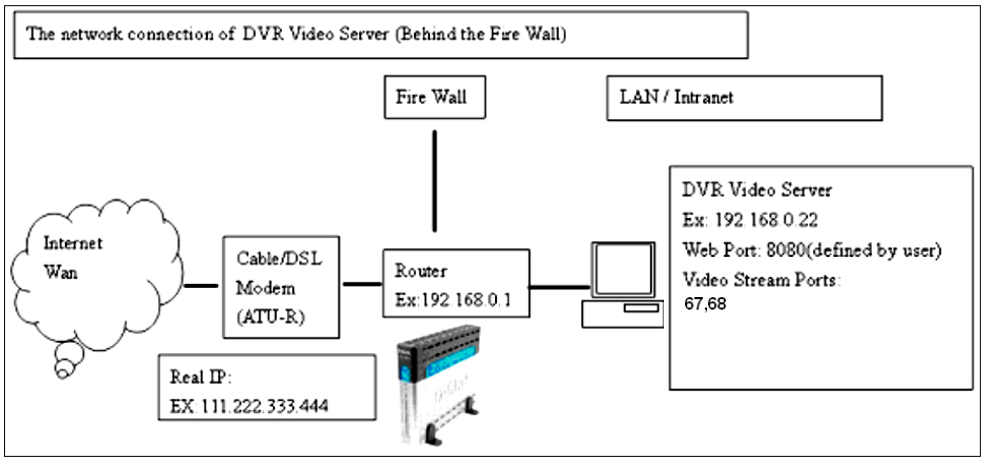
1 Access DVR Video Server from Internet

1.1 Network device connection:

The diagram below shows the connection architecture of a local network to the Internet / WAN:

This example illustrates the connection of an ADSL Router to the ADSL Modem (ATU-R). The ADSL has a physical IP Address (eg: 111.222.333.444), and all the other PCs in the local network (LAN) are connected to the ADSL Router to share the same physical IP address.

In this example, the Local IP address of the ADSL Router is 192.168.0.1 and the local IP address of the DVR Video Server is 192.168.0.22.

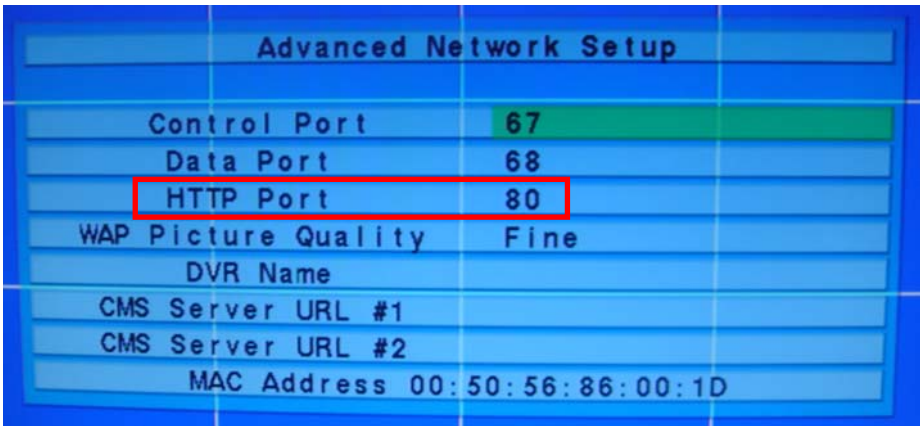


1.2 Network configuration(Stream Video via IE)

Please follow the steps below to configure the network to allow the DVR Video Server behind the Fire wall to stream the video over internet via IE.

1.3 DVR Video Server Configuration

In the DVR Video Server the user has to enable the “Web Server settings” and to specify a port for the video streaming via IE. In the sample the port is set as “8080”



1.4 Router Configuration

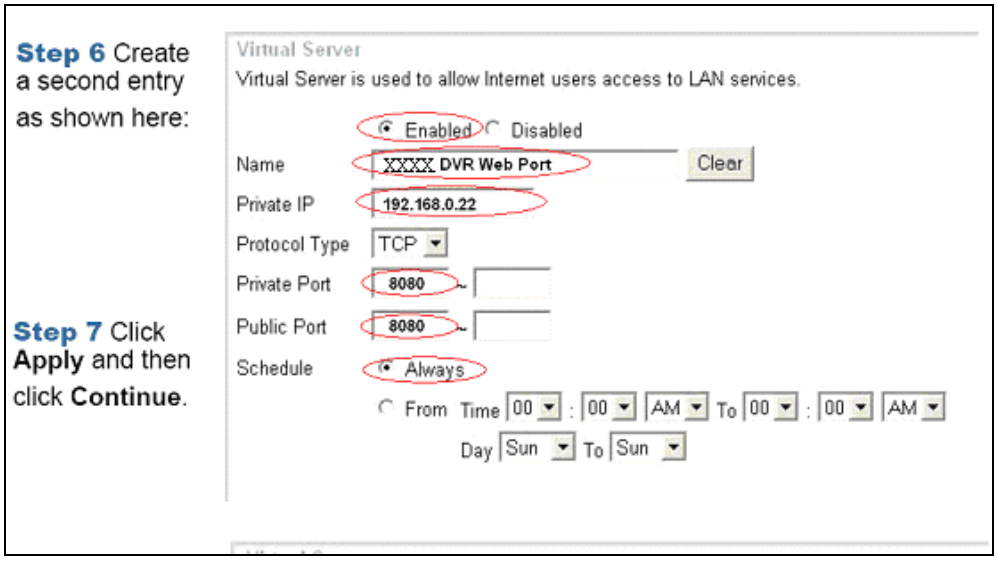
In the Router, the user has to set the port mapping for Video Server.

In this case, the port is set as 8080 and the video server local IP address is 192.168.0.22. So the user must set the port mapping 8080 to 192.168.0.22

In the picture below, we use D-Link Router (DI-524) as an example:

Note:

The configuration of different Routers could be different, please refer to the user manual of your own Router for configuration information.



1.5 View by IE

In the previous 2 steps, the port: 8080 is mapped from the Video Server (192.168.0.22) to the public.

This enables users to access the site remotely by typing in "http://111.222.333.444:8080" in the IE address bar.

Please note that user must first input the username and password in order to enter the system.

1.6 Network configuration(Stream Video by Remote Client Software)

User can also install the Remote Client Software and use the Remote Client Software to access the Video Server from remote sites.

1.7 Router Configuration

DVR Video Server uses ports 67, 68 to communicate with the Remote Client Software system. Therefore users have to map the Port mentioned above from the Video Server to the public. This example shows the mapping of 192.168.0.22 port to the public ports of 67, 68

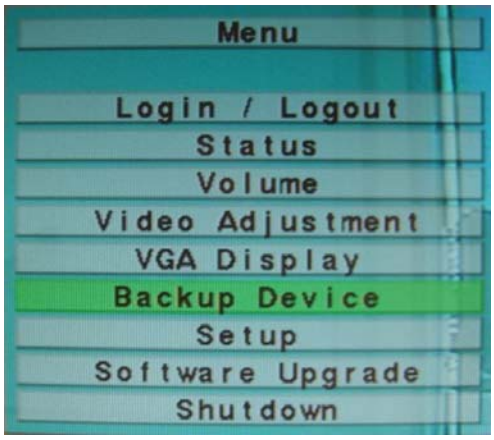
Appendix F – Backup Video File

Backup video file from Standalone to USB flash drive / external DVD rewriter

Using USB flash drive:

1. **Before using USB flash drive, please format it to FAT32 file system by MS-Windows; for SD card, please format it to FAT file system.**

2. Go to “Backup Device” option.



3. Select “USB Drive” option then press “Enter” button on remote control.

Backup Device
Devices Status Configuration
USB Drive - Connect Backup Restore
USB DVD - Connect Backup Restore
Int. DVD - Connect Backup Restore
Internal DVD Only [MODE]-Eject [SEQ]-Load
Status
Note: To backup by Internal DVD, please keep the front door open manually to avoid blocking the tray.

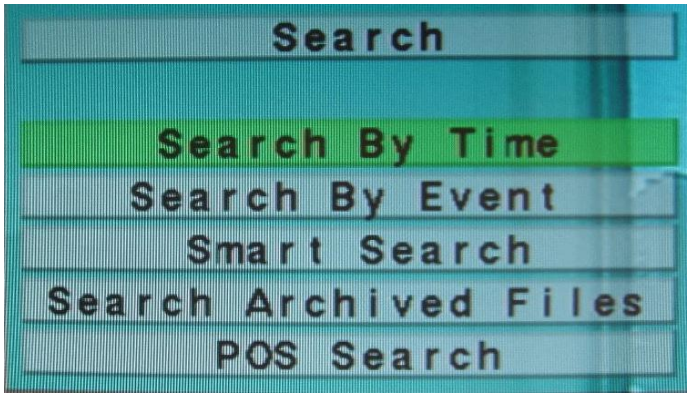
The picture below will show when USB flash drive is connecting successfully to Standalone DVR.

Backup Device
Devices Status - Configuration
USB Drive R/W Disconnect Backup Restore
USB DVD - Connect Backup Restore
Int. DVD - Connect Backup Restore
Internal DVD Only [MODE]-Eject [SEQ]-Load
Used: 0(MB), available: 3914(MB)
Note: To backup by Internal DVD, please keep the front door open manually to avoid blocking the tray.

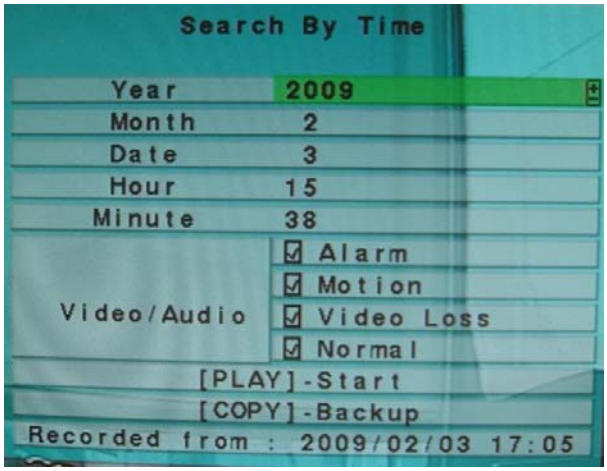
4. a. Press “ESC” button on remote control to exit the menu.

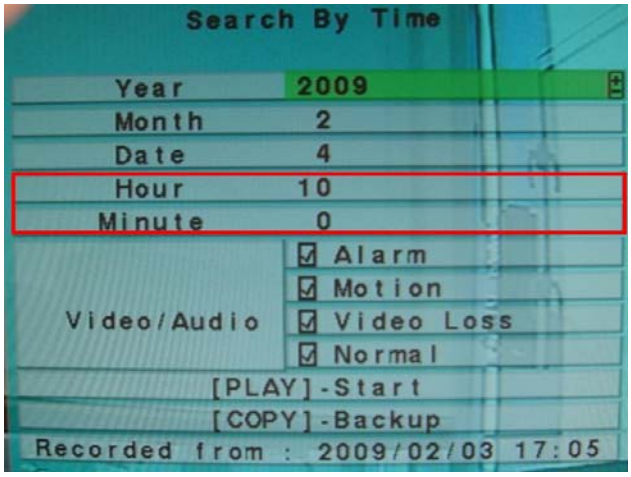
   b. Press “Search” button on remote control.

   c. Select “Search By Time” option.



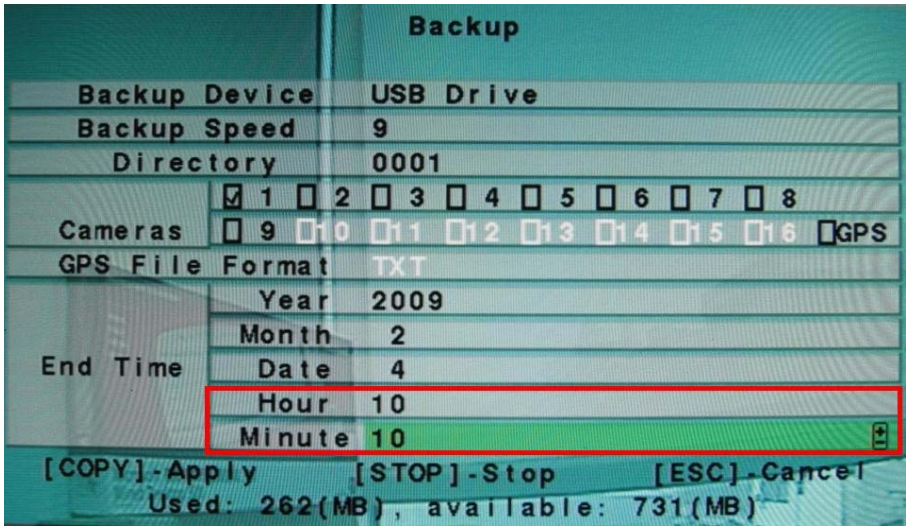
5. a. Setup the backup video starting time. Press “-” or “+” button to change the number.





5. b. Press “Copy” button .

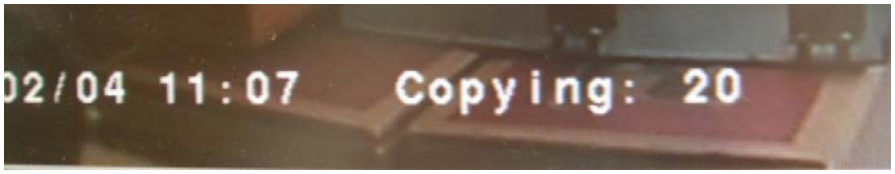
6. a. Setup the backup video finishing time.

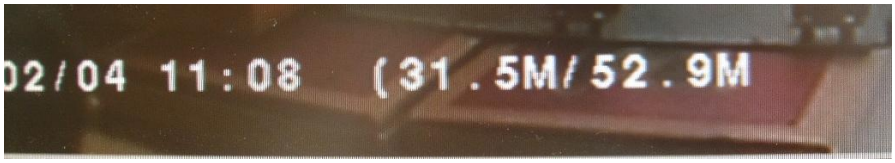


6. b. Press “Copy” button to start backup video.

7. Backup icon will be shown on button right of Monitor Display.

8. The status of backup will be shown at button of Monitor Display.



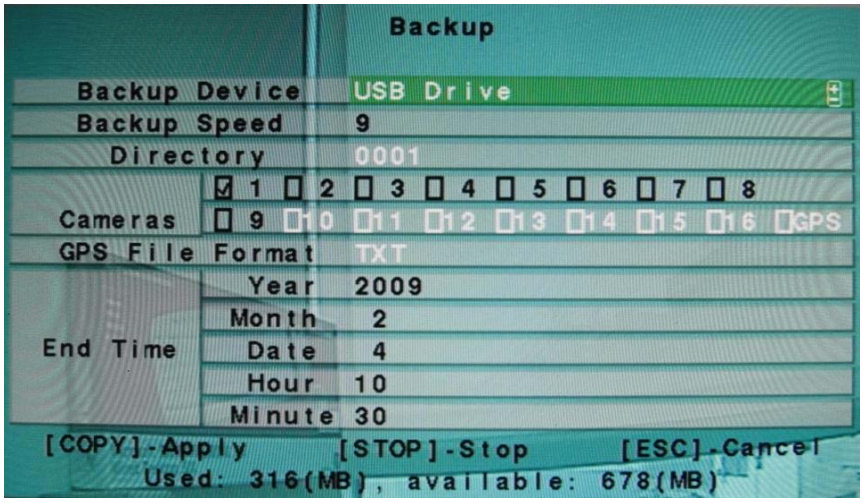


9. When Backup icon disappear meant the backup process is completed.

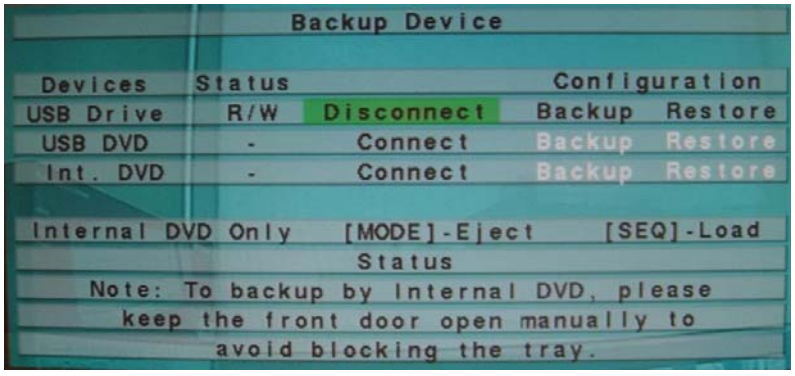
*Note: If you wish to stop the video backup while the backup process is not finish.

Press “Copy” button .

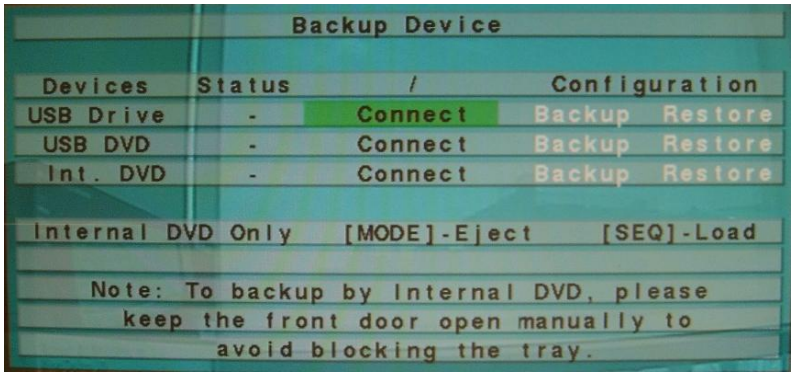
Press “Stop” button



10. Remove the USB flash drive from “Backup Device” before you unplug the USB flash drive. Press on “Enter” button to disconnect USB flash drive.


Backup Device
Devices Status Configuration
USB Drive R/W Disconnect Backup Restore
USB DVD - Connect Backup Restore
Int. DVD - Connect Backup Restore
Internal DVD Only [MODE]-Eject [SEQ]-Load
Status
Note: To backup by Internal DVD, please keep the front door open manually to avoid blocking the tray.

Now the USB flash drive is disconnected and safe to plug off from Standalone DVR.

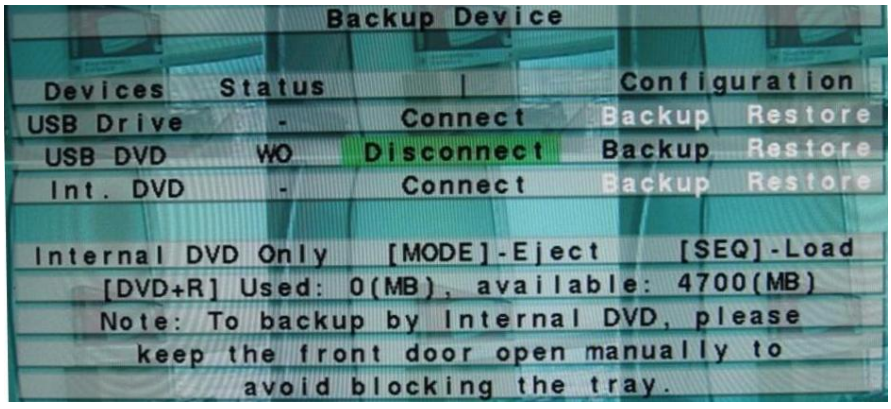

Backup Device
Devices Status / Configuration
USB Drive - Connect Backup Restore
USB DVD - Connect Backup Restore
Int. DVD - Connect Backup Restore
Internal DVD Only [MODE]-Eject [SEQ]-Load
Note: To backup by Internal DVD, please keep the front door open manually to avoid blocking the tray.

Using external DVD rewriter:

1. Please use DVD +R/-R/ RW disc for video backup. Standalone DVR would only detect DVD disc.
2. Go to “Backup Device” option.
3. Select “USB DVD” option then press “Enter” button.

Backup Device
Devices Status Configuration
USB Drive - Connect Backup Restore
USB DVD - Connect Backup Restore
Int. DVD - Connect Backup Restore
Internal DVD Only [MODE]-Eject [SEQ]-Load
Status
Note: To backup by Internal DVD, please keep the front door open manually to avoid blocking the tray.

The picture below will show when USB DVD is connecting successfully to Standalone DVR.


Backup Device
Devices Status Configuration
USB Drive - Connect Backup Restore
USB DVD WO Disconnect Backup Restore
Int. DVD - Connect Backup Restore
Internal DVD Only [MODE]-Eject [SEQ]-Load
[DVD+R] Used: 0(MB), available: 4700(MB)
Note: To backup by Internal DVD, please keep the front door open manually to avoid blocking the tray.

4. a. Press “ESC” button on remote control to exit the menu.
   b. Press “Search” button on remote control.
   c. Select “Search By Time” option.

5. a. Setup the backup video starting time. Press “-” or “+” button to change the number.

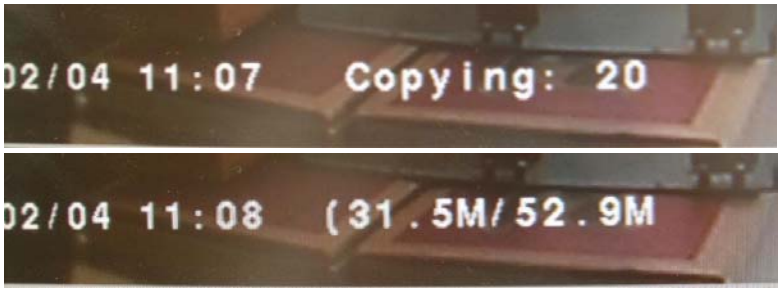
5. b. Press “Copy” button .

6. a. Setup the backup video finishing time.

6. b. Press “Copy” button to start backup video.

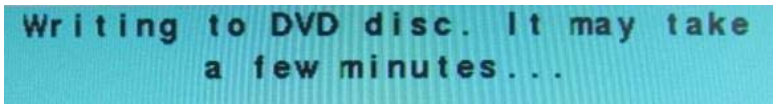
7. Backup icon will be shown on button right of Monitor Display.

8. The status of backup will be shown at button of Monitor Display.

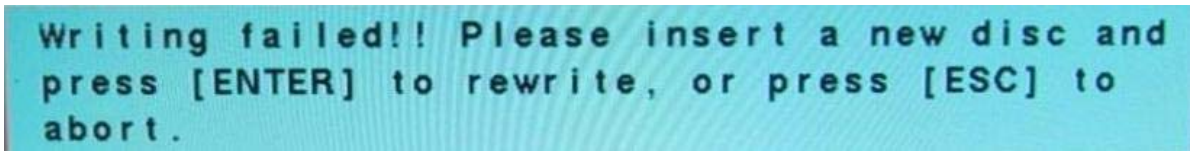


9. When Backup icon disappear meant the backup process is completed.

A popup window will appear shows “Writing to DVD disc. It may take a few minute.”



Note: if the message below appears. Please replace with a clean DVD disc then press “Enter” button.

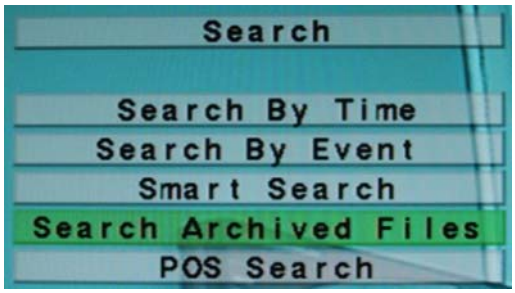


10. Remove the USB DVD from “Backup Device” before you unplug the USB DVD.
Press on “Enter” button to disconnect USB DVD.

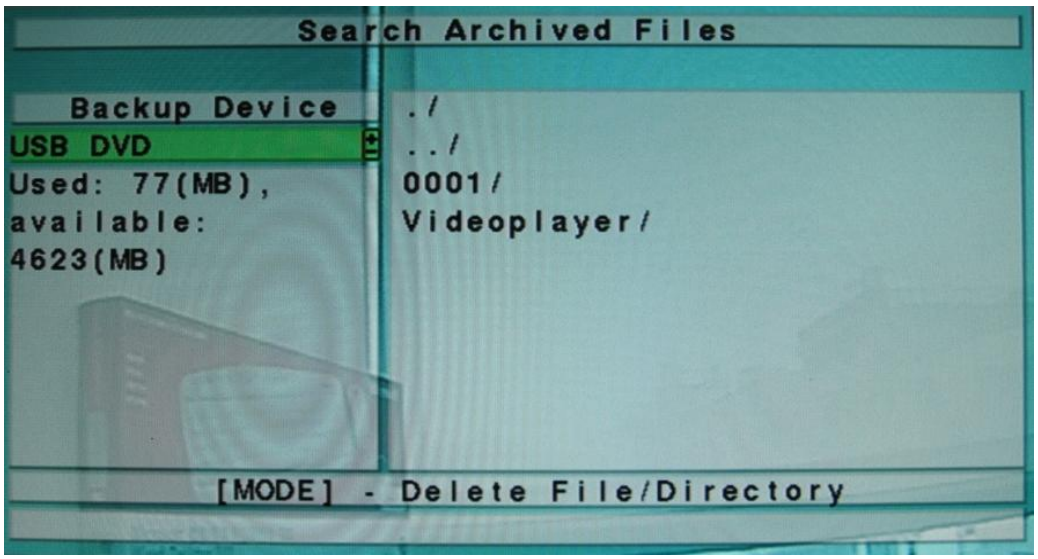
Playback video file from USB flash drive / external DVD rewriter on Standalone DVR.

1. Before playback video file from USB flash drive / external DVD rewriter please be sure these devices are connected.

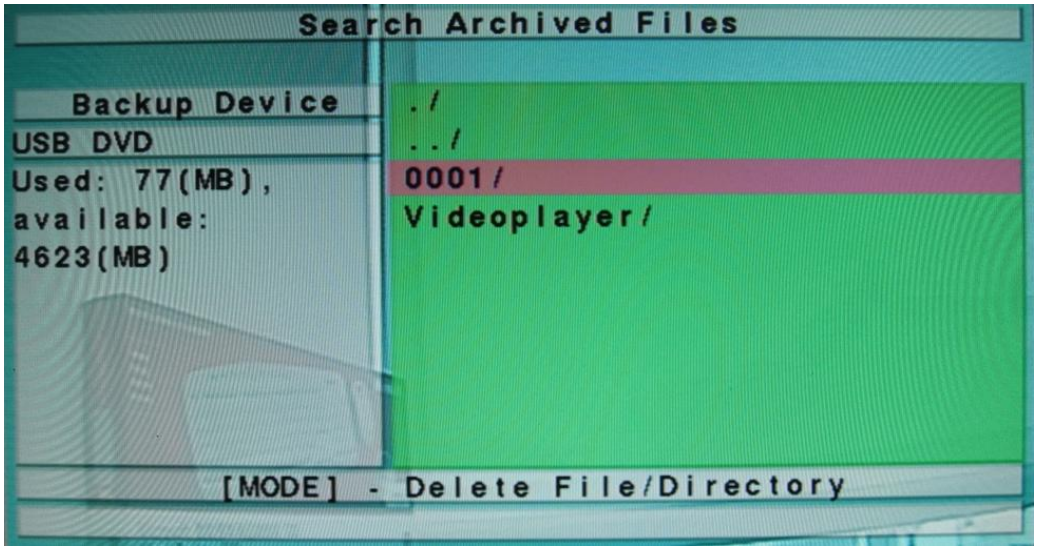
2. a. Press “Search” button on remote control.
   b. Select “Search Archived Files” option.



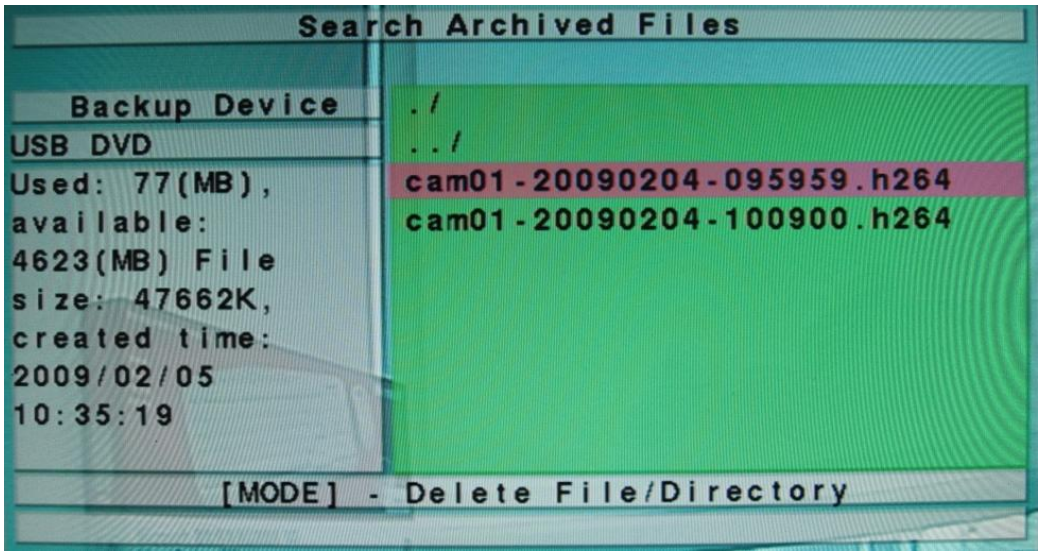
3. The video file in USB flash drive / USB DVD rewriter will be shown below.



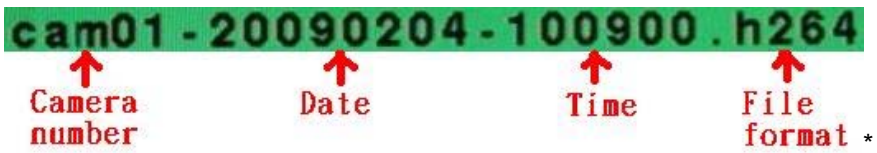
Select Video folder then press “Enter” button.



Select a video file then press “Enter” button to playback the video.



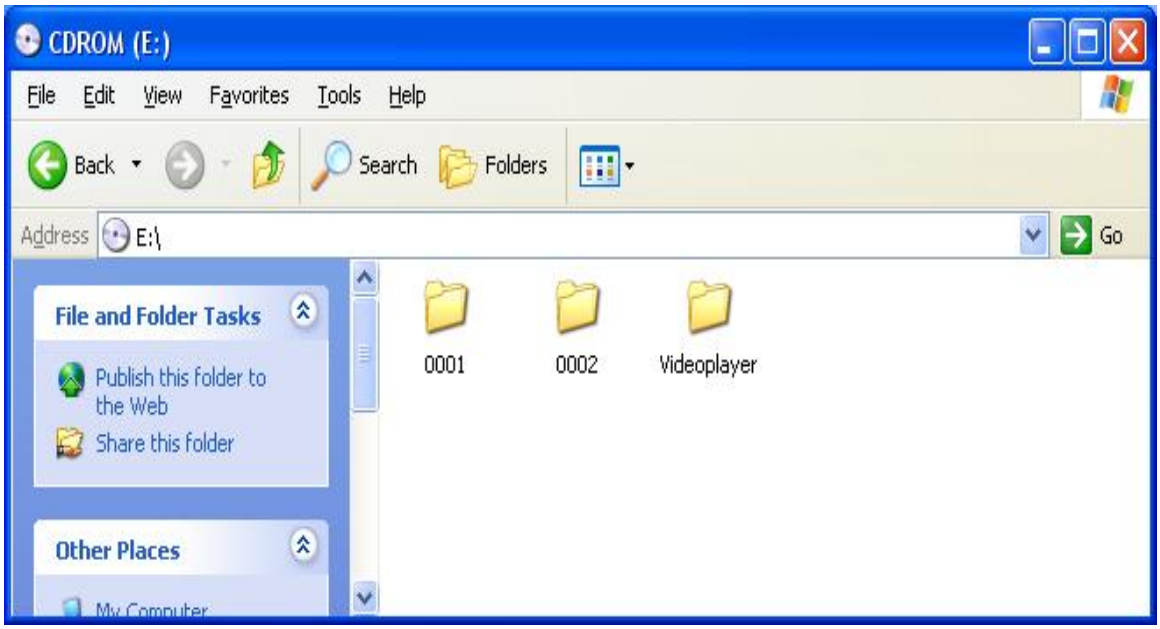
*Note: File name explanation.



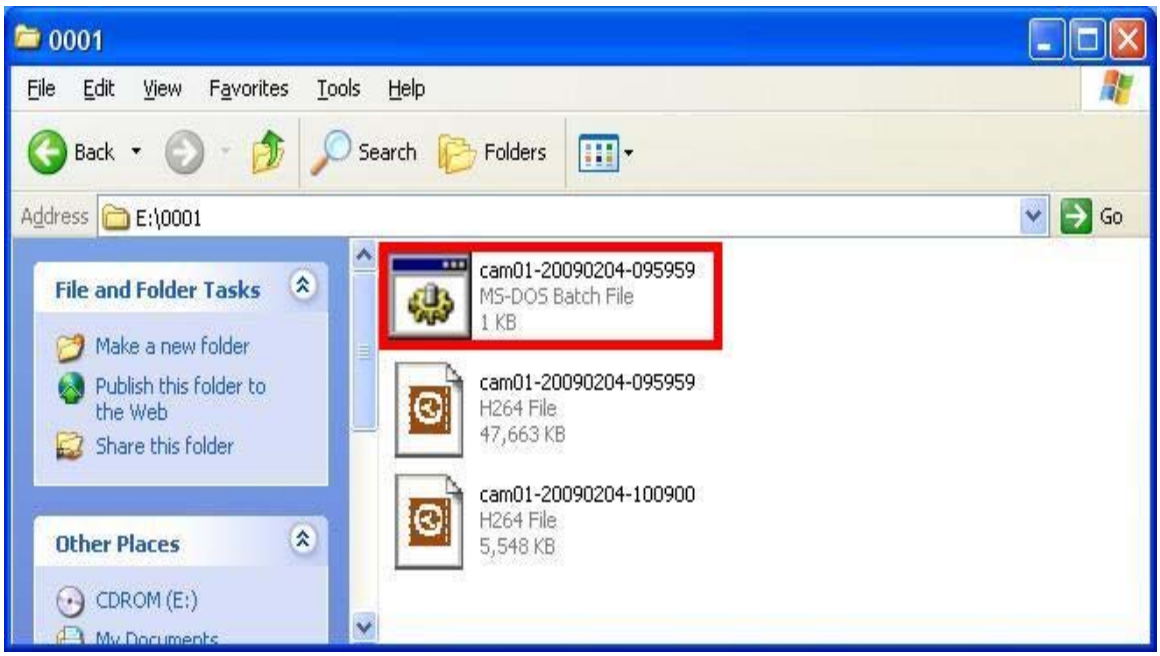
Playback video file from USB flash drive / external DVD rewriter on PC / Laptop (Window XP).

1. Insert USB flash drive / DVD disc onto PC/ Laptop.

2. Select video folder.



3. Click on icon to playback the video.



4. A video player will popup.

*Note: Functions explanation

Appendix G –Frequently Asked Questions & Trouble Shooting

Question	Reply
Features	
How many users can remote access simultaneously?	Up to 6 users can logon to DVR simultaneously.
Install Standalone	
HDD fail message appear (HDD 1 failed)	This message only appears when your HDD in Standalone has not done physical formatted. *Note: V5.08 ABOVE SUPPORTS THIS MESSAGE.*
In HDD setup the size (GB) is showing a question mark (?).	Go to "HDD Format/Clear" function. Press "Call" button to physical format HDD.
FORGOT PASSWORD	Please email us with the serial number which is in "Status" option.
IR Controller not works.	**Q1**: Battery in IR remote controller may run out. **A1**: To test out the batter you can point your IR remote controller to one of your camera and press "Menu" button. If the batteries aren't run out you should see the IR flashing in video. Flashing Not flashing Change your batteries if require. **Q2**: If the **DVR 1- 8 IR Sensor Setup** and **Q1** (Remote Controller Trouble Shooting) doesn't work. **A2**: The IR Remote Controller may be out of order. Please contact your local dealer or supplier for new IR Remote Controller. **Q3**: If you need to access standalone DVR while your Remote Controller is out of order. **A3**: Please update your standalone DVR firmware from our website.
Manipulate Standalone	
With HDD auto overwrite setting the alarm/ normal recording percentage will change from 99% to 0%, does this meant the recorded video is deleted?	0% does not delete all the recorded video. Only the oldest date video will be overwrite with new video.

How do I start record videos?	The videos will start recording once HDD is successfully installed and physical formatted.
How do I use Record Schedule?	Please refer to *Chap 7.7.5 Scheduled Record*
How do I setup PTZ camera?	Please refer to *Chap 8. PTZ Control*
How "covert setting" does works?	For user who login as "Supervisor" or "Operator" will not seeing the covert videos.
Where do I change control port / data port / HTTP port?	1. Go to "Network Setup". 2. Go to "Adv" *Note: default control port is 67; Data port is 68; HTTP port is 80*.
Does email send with video?	Email only sends with event photo.
What file will FTP received?	FTP will receive the event video file.
Standalone Backup function	
USB HDD/flash drive not detect	Please format USB HDD/flash drive to FAT32/FAT file system by Microsoft system. The backup device has to be connected by the system software before it can be used to read/write. If it failed to connect, please unplug the device, and then plug the device in the USB port again.
I have connected standalone with a USB DVD writer. But if I insert CD disc the standalone would not detect it.	DVD backup only support DVD disc not CD disc. *Note: DVD+RW, DVD+R, and DVD-R are support (DVD-RW is not supported.)*.
If I backup videos by smart search the videos are very short but when I backup from search by event the video seems longer?	If user needs to back up videos from smart search it's recommend user to use search by time function to back up the specific periods.
How do I backup configuration?	Backup configuration from IE: 1. Click on "Device Config" option. 2. Click on "Properties" button. 3. Click on "Save" button. (save the configuration to a select folder) Backup configuration from Standalone: 1. USB flash driver must be connected by software. 2. In "Backup Device" function select Backup.
Remote Access Standalone	
How do I view 2 or more Standalone device in one screen layout?	1. Click on "Device Config" option. 2. Click on "Add" button. 3. Enter the IP address, name of device (any), login user name and password for this device. 4. Click on "Link to 25win" layout option. *Note: Both the device must be able to access with IE browser*